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Aslib Book List

13

A MONTHLY LIST OF RECOMMENDED SCIENTIFIC AND TECHNICAL BOOKS

with annotations

VOLUME 25 NUMBER 1

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Aslib Book List

VOLUME 25, 1960

AUTHOR OR TITLE INDEX

A

bbott, W. 722
belson, D. *ed.* 470
bhyankar, S. 81
cademy of Sciences of the U.S.S.R. Geophysics Institute, 589
damson, C. 653
dler, R. 617
dler, R. B. 454
dvanced aero engine testing 164
dvances in cryogenic engineering 453
vances in the astronautical sciences 489
visory Group for Aeronautical Research 164
eronautical Research Council, 615
haroni, J. 87
hlfors, L. V. 509
hlgren, H. L. 167
ir Force Cambridge Research Center 739
irov, J. 241
itchison, L. 366
itken, A. C. *ed.* 639, 698
zenberg-Selove, F. *ed.* 575
bert, A. 647
lexander, P. *ed.* 212, 416
llen, R. G. D. 193
llen, W. D. 580
llis, W. P. *ed.* 461
lt, F. L. *ed.* 679
luminium Development Association 681
merican Association for the Advancement of Science 658, 665
merican Association of Mechanical Engineers 425
merican Astronautical Society 489
merican Educational Research Association 444
merican Society for Testing Materials 103, 533
merican Welding Society 652
merongen, C. van, *tr.* 730
ndersen, S. A. 227
ndrews, D. M. *tr.* 627
ndrews, W. P. 544
nfinsen, C. B. jr, *ed.* 403
nson, M. L. *ed.* 403
pleyard, H. M. 676
qua Group 682
rmstrong Cork Company 516
rmstrong, L. V. 112
rrow, K. J. 68, *ed.* 196
rthur, D. R. 418
sh, B. 568
shby, W. R. 346
Aspden, R. L. 185
Association for Applied Solar Energy 5
Atkin, R. H. 133
Atkins, H. J. B. *ed.* 220
Austin, C. R. *ed.* 531
Averbach, B. L. *ed.* 225
Axford, W. A. *comp.* 6

B

Bacq, Z. M. *ed.* 416
Baddour, R. F. *ed.* 336
Bailey, A. R. 308
Bailey, K. *ed.* 403
Baker, J. R. 643
Balabanian, N. 47
Banasinski, A. 194
Bannister, A. 200
Barker, S. A. 523
Barker, T. C. 554
Barnaby, K. C. 566
Baron, G. 323
Barrère, M. 232
Barry, R. 564
Bartlett, M. *ed.* 626, 700
Bartlett, M. S. *ed.* 85
Barton, D. H. R. *ed.* 274
Basic electronics 153
Batchelor, G. K. *ed.* 269
Batty, J. 364
Bayliss, L. E. 477
Beadle, G. W. *ed.* 288
Beaumont, A. 104
Beckerley, J. G. *ed.* 461
Bedford, J. 678
Beeler, R. *comp.* 79
Beer, A. *ed.* 328
Beer, *Sir* G. de, 256
Beer, S. 126
Begg, C. M. M. 221
Belcher, R. 280
Bell, D. A. 203
Bell, R. P. 462
Belschner, H. G. 618
Bendix, R. 192
Béné, G. J. *comp.* 79
Benson, F. A. 37
Benson, O. O. *ed.* 599
Bereday, G. Z. F. *ed.* 569
Berenblut, I. I. 620
Bergen, J. T. *ed.* 516
Berl, W. G. *ed.* 404
Berry, L. G. 22
Bershader, D. *ed.* 204
Berthelot, R. Langlois-, 484

Bessenova, E. N. 710
Beyer, R. T. *ed.* 630
Biochemical preparations 415
Bird, M. C. *ed.* 504
Birks, J. B. *ed.* 205
Birnbaum, Z. W. *ed.* 261
Bishop, M. S. 629
Bishop, R. E. D. 701
Blackburn, J. F. *ed.* 651
Blais, J. F. 237
Blakey, J. 510
Block, R. J. *ed.* 212
Boalch, D. H. *ed.* 686
Boas, R. P. 571
Bochner, S. 258
Bockris, J. O'M. *ed.* 18
Bolin, B. *ed.* 412
Bolt, R. H. *ed.* 105
Bondi, H. 515
Bonk, W. J. 7
Booth, A. D. 349
Borishanskii, V. M. 371
Born, M. 270
Botzow, H. S. D. 545
Bouman, H. 384
Bown, A. H. J. 551
Brachet, J. 416
Braddick, H. J. J. 463
Bradley, R. S. *ed.* 213
Brailsford, F. 702
Brand, J. C. D. 337
Brekhovskikh, L. M. 630
Brewster, R. Q. 339
Brillouin, L. 331
British Ecological Society 717
British instruments directory 680
British Museum (Natural History) 108
Brock, V. E. 530
Broglie, L. de, 397
Bronner, F. *ed.* 598
Brooks, R. V. *ed.* 470
Brown, J. L. *ed.* 553
Brown, S. C. 271
Brown, W. 669
Browning, E. *ed.* 281
Bruges, E. A. 332
Brunner, R. *ed.* 28
Bube, R. H. 576
Buchan, S. 96
Buchdahl, G. 695
Buckingham, H. 38
Buddery, J. H. 368
Building Research Board 63
Bullough, W. S. *ed.* 221
Burgess, R. E. *ed.* 206
Burroughs, G. E. R. *ed.* 574
Burrows, G. 737
Burton, A. J. 314
Busbridge, I. W. 631
Bush, R. R. *ed.* 196
Business computer symposium 122
Butcher, R. W. 30
Butler, J. 120
Butler, J. A. V. *ed.* 711
Buzzati-Traverso, A. A. *ed.* 464
Byers, H. R. 27
Byrne, H. J. 324

C

Cable, J. W. 499
Cahn, R. S. 1
Cameron, J. R. *comp.* 253
Camies, B. S. 39
Camm, F. J. 350
Capper, P. L. 358
Carlile, M. J. 645
Carozzi, A. V. 473
Carr, L. H. A. 632, 654
Carrier, W. H. 250
Carroll, R. L. 396
Carter, C. F. 173
Carter, M. D. 7
Cartmell, E. 118
Case, J. 34
Cassie, W. F. 358
Chace, W. G. *ed.* 272
Chalmers, B. 367
Champion, F. C. 633
Chapanis, A. 174
Chapman, A. J. 634
Chapman, V. J. 344
Charlesby, A. 340
Chemical Society 100
Cherne, R. E. 250
Cheskin, L. 363
Chetwynd, H. R. 325
Chilver, A. H. 34
Christophers, *Sir* S. R. 419
Chu, L. J. 454
Church, G. A. 35
Cifre, J. S. *comp.* 253
Cinefluorography 435
Clarke, H. M. *tr.* 484
Clarke, W. E. *rev.* 376
Clason, W. E. *comp.* 293
Clease, A. G. D. 50
Clendinning, J. 17, 201
Cockett, A. H. 238
Cole, E. J. 559
Cole, H. H. 171
Collar, A. R. *ed.* 398, 488
Collins, J. L. 731
Collison, R. L. 2
Colston Research Society 488
Comar, C. L. *ed.* 598
Commonwealth Economic Committee 505
Commonwealth Mycological Institute 593
Condoyannis, G. E. 130
Connor, P. 706
Cook, J. G. 242, *ed.* 373, 520, 677
Cooke, G. W. 166
Cooke-Yarborough, E. H. 353
Cooper, J. P. 492
Cope, J. I. *ed.* 66
Corbett, E. V. 383
Corns, J. A. 180
Cosmetic science 177
Cotton, H. 606–7
Council for Scientific and Industrial Research 613

Cour, L. F. La, 414
Coxon, W. F. 577
Craft, B. C. 357
Craig, S. Ross-, 145
Crampton, E. W. 596
Crew, M. D. 276
Croft-Murray, G. 71
Cross, A. D. 273
Cross, K. W. 503
Crouch, H. F. 548
Crowther, J. G. 624
Cullwick, E. G. 154
Cupps, P. T. 171
Currie, R. M. 175
Cutbush, P. 125
Cuthbertson, J. W. 239
Cyriax, B. *rev.* 498

D

Dana, J. D. 143
Danckwerts, P. V. *ed.* 336
Dani, A. de, *ed.* 677
Dannatt, T. 124
Darling, F. F. 694
Darlington, C. D. 414
Darwin, G. E. 368
Daudel, P. 405
Davies, E. *ed.* 552
Dawson, R. M. C. *ed.* 222
Day, W. D. 511
Daykin, P. W. 478
de Beer, *Sir* G. 256
de Broglie, L. 397
De Dani, A. *ed.* 677
D'Eye, R. W. M. 582
de Ong, E. R. 661
de Veubeke, B. F. 232
De Vries, L. *ed.* 243
Debreu, G. 321
Dekker, A. J. 40
Delavenay, E. 619
Delorit, R. J. 167
Dennis, J. B. 82
Densham, D. H. 186
Department of Scientific and Industrial Research 57, 168, 181–2
Désirant, M. *ed.* 460, 518, 537
Desoutter, D. M. 52
Devienne, F. M. *ed.* 335
Diack, H. 388
Dickson, J. H. 97
Dimond, A. E. *ed.* 476, 594
Din, F. 238
Dixon, W. 72
Dobrin, M. B. 410
Dodge, H. F. 176
Doering, W. *ed.* 274
Dougall, B. M. 667
Dove, C. A. 551
Dowdeswell, W. H. 109
Downes, A. B. 620
Downing, J. 117
Drake, R. M. *ed.* 136
Dryden, H. L. *ed.* 335, 601
Duecker, W. W. *ed.* 309
Duncan, D. L. 719
Dunn, L. C. 285
Durham University. Department of Civil Engineering, 547
Dury, G. H. 25
Dutta, A. C. 31
Dynamics of climate 526

E

'E & O.E', *pseud.*, 125
Eaborn, C. 406
Easton, W. H. 391
Ebeling, W. 54
Eckart, C. 524
Edmondson, W. T. *ed.* 107
Edmundson, J. 127
Edsall, J. T. *ed.* 403
Edwards, R. 692
Edwards, R. S. 69
Ehricke, K. A. 304
Eirich, F. R. *ed.* 635
Eisner, U. *tr.* 405
Electrochemical Society 472
Elliott, A. 97
Elliott, D. C. *ed.* 222
Elliott, W. H. *ed.* 222
Ellis, R. H. 229
Ellwood, E. C. 239
Elsevier Publishing Co. 80, 293, 362, 380
Emde, F. 259
Emeléus, H. J. *ed.* 640
Emery, K. O. 525
Emmett, P. H. *ed.* 583
Emmons, H. W. *ed.* 20
Encyclopedia of American associations 65
Encyclopedia of educational research 445
Errara, M. *ed.* 712
Esau, K. 475
Estes, W. K. *ed.* 196
Estevez, J. M. J. 741
European General Galvanizers Association 178
Evans, U. R. 226
Even, A. D. 422
Evered, D. S. 494
Everitt, W. L. *ed.* 40, 123

F

Fægri, K. *ed.* 528
Fairchild Publications 377
Faires, R. A. 520
Falconer, D. S. 713
Fano, R. M. 454
Faraday Society 23
Farb, P. 491
Fearon, J. H. *ed.* 292
Feather, N. 134, *ed.* 515
Fees, C. E. *ill.* 724
Felbeck, D. K. *ed.* 225
Feodosiev, V. I. 301
Fernilius, W. C. *ed.* 466
Finkbeiner, D. T. 512
Finniston, H. M. *ed.* 59, 368
Firsoff, V. A. 15
Fisher, K. H. 149

Fishwick, V. C. 172
Fitchen, F. C. 608
Florkin, M. 417
Fock, V. 88
Folkes, B. F. 645
Food and Agriculture Organization 492
Forssberg, A. *ed.* 712
Foust, A. S. 671
Fowler, P. H. 139
Francis, G. E. 98
Fraser, A. 735
Fraser, E. 73
Fraser, F. C. 110
French Society of Radioelectricians 230
Frenkiel, F. N. *ed.* 479
Friswell, J. K. 615
Frontiers of numerical mathematics 446
Frost, B. R. T. 93
Fry, D. W. *ed.* 726
Fuchs, L. 447
Fuchs, N. A. 213
Fuqua, M. E. 149

G

Gage, J. C. *ed.* 147
Galloway, I. A. *ed.* 148
Garrels, R. M. 407
Gas chromatography abstracts 408, 521
Gas Chromatography Discussion Group 408, 521
Gaynor, F. 131
Geary, P. J. 315
George, J. J. 527
Gibbs & Cox Inc. 305
Gibson, A. F. *ed.* 206
Gibson, Q. 320
Gill, H. R. 542
Gillespie, C. C. 625
Gillespie, E. L. *ill.* 288, 596
Gillie, A. C. 41
Gillman, L. 697
Gilluly, J. *ed.* 22
Gloag, H. L. 57
Godfrey, D. E. R. 19
Goldsmith, W. 703
Golub, M. *comp.* 79
Goodier, J. N. *ed.* 401
Goodin, F. G. 117
Gosline, W. A. 530
Grabbe, E. M. *ed.* 247
Grant, W. A. 250
Grassie, J. C. 650
Gray, P. E. 636
Great Britain. Building Research Board, 63
Department of Scientific and Industrial Research, 57, 168, 181–2
Ministry of Agriculture Fisheries and Food, 56
Ministry of Education, 74, 444
Ministry of Supply, 615
Green, H. *rev.* 376
Green, J. Singleton-, *ed.* 544
Greenspan, D. 393
Grenander, U. *ed.* 394
Grinter, L. E. 729
Gripaios, H. 77
Grube, W. L. *ed.* 36
Guest, M. *tr.* 268
Guggenheim, E. A. 578
Guide to American directories 684
Guild, J. 502
Gulliford, R. 390
Gunning, R. C. *ed.* 258
Gunther, F. A. 662
Gurd, F. R. N. 522
Gutenberg, B. 283
Guy, J. B. 341
Guyon, Y. 730
Gyngell, E. S. 738
Györgyi, A. Szent-, 715

H

Haberkamp, G. 236
Haensch, G. 236
Hague, R. *tr.* 296
Hahn, G. T. *ed.* 225
Haim, G. 121
Haley, A. C. D. *ed.* 379
Hall, A. R. *ed.* 695
Hall, M. B. 695
Hall, P. *ed.* 631
Halley, W. C. 12
Halmos, P. R. 513, *ed.* 262, 451
Hamilton, S. *tr.* 9
Hanahan, D. J. 522
Handloser, J. S. 210
Hannan, E. J. 626
Hansford, R. F. *ed.* 660
Hardin, G. 644
Hardman, H. 559
Hardwick, W. H. 706
Hardy, A. C. *ed.* 77
Hardy, G. H. 395
Harper, J. L. *ed.* 717
Harré, R. 327
Harrel, C. G. *comp.* 433
Harris, C. W. *ed.* 445
Harris, E. J. 592
Harris, L. B. 517
Harris, N. C. 317
Harrison, D. 37
Harrison, S. G. 287
Hartley, E. M. 448
Hartman, J. B. 112
Hartshorne, N. H. 135
Harvey lectures 480
Haslett, A. W. 570
Hausner, H. H. *ed.* 310
Hawker, L. E. 645
Hawkins, M. F. 357
Hawkins, R. 436
Hawley, W. G. 155
Hawthorne, W. R. *ed.* 481
Hayward, R. *ill.* 22
Health physics in nuclear installations 338
Hearle, J. W. S. *ed.* 61, 312
Hedges, E. S. *ed.* 239
Heftmann, E. 584
Heine, V. 455
Hele, D. King-, 306

Helstrom, C. W. 726
Herbert, J. *ed.* 79, 546
Herdan, G. 706
Herman, R. 581
Herriott, C. T. M. *tr.* 733
Hersee, E. H. W. 248
Hertfordshire County Council Technical Information Service 437
Heslop, R. B. 465
Hickerson, T. F. 233
Hickey, D. 439
Hicks, J. R. 78
Higgins, G. C. 254
Higinbotham, W. A. *ed.* 726
Hincks, W. D. 108
Hines, H. S. 69
Hingorani, N. G. 653
Hinze, J. O. 136
Hitchcock, A. 535
Hoare, W. E. 239
Hockenhull, D. J. D. *ed.* 430
Hockensmith, R. D. *ed.* 658
Hoff, N. J. *ed.* 401
Hoffenberg, M. 68
Hoffman, W. C. *ed.* 294
Hoffmann-Ostenhof, O. *ed.* 28
Hofstadter, R. 581
Hogben, L. 503
Hollomon, J. H. *ed.* 367, 623, 674, 709
Horecky, P. L. 8
Horn, M. B. 500
Horsfall, J. G. *ed.* 476, 594
Hoskin, M. A. 695
Houwink, R. 384
Howard, R. A. 670
Hughes, A. G. 692
Hughes, E. H. 692
Hugot, E. 431
Hume-Rothery, W. 672
Hunt, F. V. *ed.* 354
Hunt, K. H. 113
Hurd, J. 369
Hurlbut, C. S. *ed.* 143
Hurst, R. *ed.* 604
Hutchings, E. *ed.* 257
Hutchinson, *Sir* J. 55
Hutton, M. 510
Hynes, H. B. N. 591
Hypersonic flow 398
Hyslop, J. M. 698

I

Ilersic, A. R. 67
Iles, D. J. 322
Ingerson, E. *ed.* 202, 345
Institute of Advanced Study 526
Institute of Biology 224
Institute of Petroleum 370
Hydrocarbon Research Group, 103, 408, 521
Institution of Heating and Ventilating Engineers 565
Institution of Metallurgists 673
Institution of Water Engineers 612
Instrument manual 249
International Association of Agricultural Librarians and Documentalists 686
International Association of Music Libraries 685
International Association of Universities 195
International Committee of Electrochemical Thermodynamics and Kinetics 99
International conference on co-ordination chemistry 100
International conference on scientific information 381
International Musicological Society 685
International Union of Geodesy and Geophysics 479
International Union of Pure and Applied Chemistry 100, 147, 384, 518
International Union of Pure and Applied Physics 460
International Union of Theoretical and Applied Mechanics 89
Ipsen, D. C. 456
Isaac, P. C. G. *ed.* 547
Isaacs, N. *ed.* 507
Ivakin, B. N. 589
Ivall, T. E. 378
Ivins, J. D. *ed.* 169

J

Jackman, L. M. 274
Jackson, W. *ed.* 737
Jacob, F. 480
Jacobi, H. R. 560
Jacobs, A. M. 536
James, T. H. 254
Janssen, P. A. J. 347
Jastrzebski, Z. B. 291
Jaswon, M. A. 24
Jaumotte, A. 232
Jeannel, R. 720
Jeffers, J. N. R. 663
Jelley, J. L. *ed.* 513
Jenkins, G. H. *tr.* 431
Jenkins, R. B. M. 234
Jensen, J. S. *ed.* 5
Jeppson, L. R. 662
Jerger, J. J. 534
Jerison, M. 697
Jerrard, H. G. 637
Johnson, D. C. 701
Johnson, P. O. 260
Jones, D. H. *tr.* 486
Jones, H. W. *ed.* 66
Jones, K. M. *ed.* 222
Jonscher, A. K. 483
Judge, A. W. 423
Judges, A. V. *ed.* 75

K

Kac, M. 83
Kapp, R.O. 267
Karlin, S. 261
Kármán, T. von, *ed.* 334–5, 481, 601
Katritsky, A. R. 342
Katz, B. *ed.* 711

Katz, L. *ill.* 491
Keating, D. 64
Keck, D. D. 32
Kelley, J. L. *ed.* 262, 451
Kemeny, J. G. 262
Kemner, N. *tr.* 88
Kendall, M. G. *ed.* 627
Keyes, H. M. R. *ed.* 195
Keyte, M. J. 57
Khintchine, A. Y. 627
Kibel', I. A. *ed.* 589
Kieffer, R. 426
Kilner, E. 432
King, C. A. M. 218
King, R. W. P. 354
King-Hele, D. 306
Kingery, W. D. 137, 333
Kirchmayer, L. K. 295
Kit, B. 494
Kline, D. E. 536
Kline, S. J. *ed.* 136
Kloeffler, R. G. 538
Knapman, C. E. H. *comp.* 408, 521
Kneebone, G. T. 86
Knodel, A. *tr.* 397
Kompaneets, A. S. 675
Kopal, Z. *rev.* 268
Körner, S. 699
Korta, H. E. 541
Kramish, A. 279
Krieger, S. Woinowsky-, 151
Kröger, F. A. 206
Kruyt, H. R. 585
Kuethe, A. M. 138
Kunin, R. 495
Kurn, A. G. 615
Kursh, H. 191
Kurth, R. 16
Kutateladze, S. S. 371

L

La Cour, L. F. 414
Lagowski, J. M. 342
Laitinen, H. A. 466
Lance, G. N. 449
Landes, K. K. 219
Landsberg, H. E. *ed.* 479
Lange, O. 194
Langer, R. E. *ed.* 197
Langlois-Berthelot, R. 484
Lardy, H. A. *ed.* 415
Larian, M. G. 372
Larsen, S. A. 228
Lauwerys, J. A. *ed.* 569
Lawden, D. F. 207
Lawrence, E. *ed.* 507
Lawson, D. F. 438
Lederer, M. *ed.* 467
Lehmann, E. L. 263
Leinwoll, S. 42
Leontovich, M. A. *ed.* 94
Leontovich, V. 359
Lepa, E. *tr.* 194
Leva, M. 58
Levinger, J. S. 519
Lewis, I. A. D. 156
Lewis, F. A. 471
Lewis, P. R. 442
Lewis, W. R. 239
Liba, M. R. *ed.* 445
Lieberman, D. *tr.* 630
Liggett, D. R. *comp.* 387
Lilley, S. 695
Lillie, D. W. *ed.* 536
Lin, C. C. *ed.* 334
Ling, Wang 132, 316
Linton, A. H. 645
Lipset, S. M. 192
Lisney, A. A. 420
Lloyd, L. E. 596
Lockheed Aircraft Corporation 204
Lockwood, *Sir* J. 555
Lodge, G. A. 719
Long, H. C. *ed.* 429
Low, W. 457
Lowndes, G. A. N. 622
Luntz, J. D. *ed.* 229
Lurch, E. N. 539
Luther, F. 187
Lyon, R. N. *ed.* 604
Lyustikh, E. N. 589

M

McClellan, A. L. 587
McEwen, W. E. 339
McGee, J. D. *ed.* 540
McKenzie, A. E. E. 696
Mackenzie, J. D. *ed.* 18
McNeill, D. B. 637
Maddock, A. G. *ed.* 588
Majer, J. R. 214
Makarov, E. S. 101
Maltzoff, N. 255
Manchester Joint Research Council 386
Mandelstam, S. 705
Mansfield, W. K. *ed.* 93
Manske, R. H. F. *ed.* 468
Mansum, C. J. van, 380
Mark, D. 43
Marks, S. S. 377
Marquardt, W. *rev.* 498
Marter, D. H. 424
Marton, L. *ed.* 540
Marvel, C. S. 215
Maryon, H. 60
Maryon, M. E. 600
Mason, B. 22
Mason, H. S. 417
Mason, I. L. 736
Massey, H. S. W. *ed.* 575
Massey, S. W. *ed.* 331
Mathematics Research Center 446
Maule, J. P. 736
Mayer, A. 376
Mazeler, L. Y. 496
Medawar, P. B. 286
Mee, A. J. *tr.* 585
Meikle, R. D. 287, *ed.* 289
Mellanby, K. *ed.* 643
Mendelssohn, K. *ed.* 458

Meredith, R. *ed.* 61
Merrill, G. *ed.* 304, 534
Messel, H. *ed.* 399
Mevissen, W. 9
Michiels, J. L. *ed.* 460, 518, 537
Middleton, A. W. *ed.* 177
Middleton, H. A. 157
Mieghem, J. van, 283, *ed.* 479
Mikusinski, J. 84
Miller, A. R. *rev.* 459
Miller, B. M. *ed.* 556
Miller, G. L. 59
Miller, J. C. *tr.* 397
Miller, J. T. *ed.* 249
Miller, R. N. B. 62
Mills, J. 687
Mills, R. G. 314
Milne-Thomson, L. M. 275
Ministry of Agriculture Fisheries and Food 56
Ministry of Education 74, 444
Ministry of Supply. Aeronautical Research Council, 615
Mitchell, A. M. 183
Mitchell, G. A. 183
Mitchell, G. E. 360
Mndzhoian, A. L. *ed.* 102
Modelski, G. A. 95
Moir, T. R. G. 492
Molloy, E. *ed.* 114
Monday, C. 602
Moore, H. K. *ed.* 272
Moore, W. C. 170
Moran, P. A. P. 85
Morgan, J. H. 150
Morgan, J. R. *ed.* 266
Morgan, P. *ed.* 562–3
Morgan, R. S. 284
Morse, M. *ed.* 450, 509
Morton, M. *ed.* 313
Mosettig, E. 584
Moss, A. J. K. 51
Motor ship 307
Mott, N. F. *ed.* 278
Mueller, W. M. *ed.* 708
Mulligan, W. 98
Munby, A. N. L. 385
Munz, P. A. 32
Murphy, G. M. 572
Murray, G. Croft-, 71

N

Narcus, H. 742
Nash, M. J. 734
National Academy of Sciences–National Research Council 225, 345, 381
National Bureau of Standards 446
National Film Archive 688
National Physical Laboratory 382
National Research Council 345, 381
Natural history of Rennell Island 13
Nayler, J. L. 165
Needham, J. 132, 316
Neubauer, O. 223
Nevanlinna, R. 450
New Education Fellowship 507
New York Academy of Medicine 480
Nibakken, O. E. 3
Nicholl, G. W. R. 611
Nicholls, C. M. *ed.* 604
Nidditch, P. H. 514
Nield, D. *rev.* 183
Nissan, A. H. *ed.* 244
Noltingk, B. E. 4
Northcott, D. G. 628
Novikov, I. I. 371
Nuclear electronics 230
Nuffield Foundation 567
Nutten, A. J. 280

O

O'Connor, J. R. *ed.* 739
Oldroyd, H. *tr.* 720
Olson, W. T. *ed.* 481
Olszak, W. *ed.* 89
Oncley, J. L. *ed.* 105
Ong, E. R. de, 661
Ordway, F. I. 490, 616
Organization for European Economic Co-operation 348
Ostenhof, O. Hoffmann-, *ed.* 28
Oudet, L. 296
Overbeek, J. T. G. 585
Owler, L. W. J. *ed.* 553
Oxford University Hudson Strait Expedition 441

P

Paisley, K. 732
Palmer, W. G. 216
Paradise, R. S. 35
Parker, H. 610
Parker, M. A. 318
Parkinson, D. *ed.* 718
Parkinson, J. R. 549
Parks, B. H. 520
Parr, N. L. 373
Parsons, R. *comp.* 217
Paterson, D. A. *tr.* 641
Paton, H. J. *ed.* 699
Pattison, F. L. M. 281
Pauling, L. 586, *ed.* 587
Pawson, H. C. 427
Payne, A. R. 561
Payne, G. L. 392
Peaceful uses of atomic energy 116
Pearson, H. M. 657
Pease, D. C. 597
Peel, E. A. *ed.* 574
Peel, H. I. F. 158
Penn, C. 251
Penner, S. S. 208
Pennycuick, K. *ed.* 126
Penrose, L. S. 106
Perkins, D. H. 139
Perkins, J. F. 111
Peter, J. *ed.* 683
Peters, R. H. *ed.* 312
Petts, E. *ill.* 287
Pfeffer, R. L. *ed.* 526

Phillips, A. L. *ed.* 652
Phillips, C. J. 621
Photo-electric image devices 540
Physical Society 638
Physics and medicine of the atmosphere and space 599
Picken, L. 714
Pickup, F. 318
Pierce, S. R. 125
Pillsbury Company 433
Pimentel, G. C. 587
Pincus, G. *ed.* 648
Plastics progress 562
Plunkett Foundation for Co-operative Studies *ed.* 664
Pol, B. van der, 83
Pollard, H. *tr.* 258
Polunin, N. 595, *ed.* 344, 666, 731
Pomerans, A. J. *tr.* 646
Popják, G. *ed.* 469
Porges, J. 184
Porter, A. *ed.* 725, 727
Porter, C. L. 288
Poucher, W. A. 119, 374
Powell, C. F. 139
Powell, D. C. 741
Prager, W. 20
Pratt, J. M. *tr.* 213
Precipitation processes in steels 179
Prensky, S. D. 298
Press, J. J. *ed.* 245
Preston, H. K. 543
Price, D. J. de S. 316
Price, E. M. 38
Price, W. C. 319
Prince, R. H. *ed.* 641
Proceedings of an international symposium on the theory of switching 297
Proceedings of the international congress of biochemistry 28
Proceedings of the international congress of mathematicians 264
Proceedings of the international symposium on microchemistry 282
Progress in metallurgical technology 673
Putman, J. L. 707

Q

Quantitative paper chromatography of steroids 470
Quenouille, M. H. *tr.* 627
Quirk, R. 76

R

Ralston, A. *ed.* 573
Ramo, S. *ed.* 247
Ramsey, G. H. S. 435
Rao, M. S. 260
Rapaport, B. 568
Rarefied gas dynamics 335
Rassweiler, G. M. *ed.* 36
Rata, P. J. H. 299
Ratcliffe, J. A. *ed.* 413
Rawson, W. *ed.* 507
Raymond, S. 200
Redfarn, C. A. 678
Reethof, G. *ed.* 651
Reeves, E. A. *ed.* 497
Reich, H. J. *ed.* 608
Reiner, M. 209
Reissner, E. *ed.* 20
Reitz, L. P. *ed.* 665
Remick, F. J. 536
Renfrew, A. *ed.* 563
Review of textile progress 246
Reynolds, C. E. 252
Richards, E. W. T. 276
Richards, J. A. 211
Richards, P. I. 21
Richardson, J. H. 443
Rider, J. F. 159, 298
Ridland, D. M. 615
Rindler, W. 639
Robb, J. C. *ed.* 577
Roberts, A. *ed.* 656
Roberts, C. S. 674
Roberts, J. 727
Roberts, J. K. 459
Roberts, W. H. 250
Robertson, R. H. S. 642
Robinson, E. A. 265
Robinson, P. L. 465
Robson, W. A. 690, *ed.* 622
Rocard, Y. 579
Rodgers, T. M. 160
Rogers, G. L. 302
Romanoff, A. L. 721
Romig, H. G. 176
Rosenbaum, R. A. *ed.* 512
Rosenberg, M. D. *ed.* 105
Ross, A. M. 389
Ross-Craig, S. 145
Rossberg, E. A. 541
Rostand, J. 646
Rothery, W. Hume-, 672
Rowen, C. E. 695
Royal Electrical & Mechanical Engineers *rev.* 153
Royal Institute of Chemistry 612
Royal Institute of Public Administration 69
Rozenberg, G. B. *ed.* 400
Rubber Stichting *comp.* 80
Rudaux, L. 268
Runcorn, S. K. *ed.* 474
Rusk, R. R. 623
Rutherford, D. E. *ed.* 639, 698
Ruzicka, J. E. *ed.* 425
Ryan, P. W. S. 162

S

Saad, L. G. 574
St John, J. 570
Salisbury, G. W. *ed.* 596
Salter, W. E. G. 506
Samburoff, S. N. *tr.* 301
Samuel, D. M. 432
Sario, L. 509
Sarx, H. F. 498
Saxe, R. F. 605
Say, M. G. *ed.* 379

Scheffé, H. 198
Schetzer, J. D. 138
Schmidt, jr, G. E. *ill.* 115
Schmitt, F. O. *ed.* 105
Schneider, E. *rev.* 498
Schofield, A. N. *tr.* 486
Schulman, J. H. *ed.* 205
Schulz, G. 501
Schumar, J. F. *ed.* 310
Schure, A. *ed.* 44–6
Schwarzkopf, P. 426
Schweitzer, G. 351
Science Teachers' Joint Sub-committee 128
Scientific Instrument Manufacturers' Association 680
Scott, C. G. *ed.* 408, 521
Scott, J. R. 561
Scott, W. E. *ed.* 379
Sears, F. W. 140
Seaton, J. P. 617
Seifert, H. S. *ed.* 53
Seitz, F. *ed.* 457
Selove, F. Ajzenberg-, *ed.* 575
Semple, J. G. 86
Seshu, S. 47
Seyringer, H. M. *tr.* 541
Sharpe, A. G. *ed.* 640
Sharps, W. S. 188
Shaw, R. R. *ed.* 436, 439
Shearer, J. L. *ed.* 651
Sheffield University. Department of Metallurgy, 179
Shepherd, D. G. 603
Sheppard, P. *ed.* 479
Shewhart, W. A. *ed.* 176
Shireby, D. 343
Shoenberg, D. *ed.* 515
Short, A. E. 90
Shute, P. G. 600
Shuttleworth, A. C. 290
Sidgwick, J. B. *tr.* 268
Silberston, D. 326
Sinclair, J. 609
Sinclair, S. 231
Singer, C. 14
Singer, J. R. 161
Singh, L. B. 666
Singleton-Green, J. *ed.* 544
Siniarev, G. B. 301
Sinkankas, J. 144
Skinner, Thomas & Co. (Publishers) Ltd 743
Slater, L. J. 199
Smelser, N. J. 70
Smiltens, J. *ed.* 739
Smith, A. H. 76
Smith, C. J. 141
Smith, F. G. 550
Smith, G. 434
Smith, M. L. 706
Smith, N. N. P. 355
Smith, S. P. 355
Smithers, F. *ed.* 631
Smythe, R. H. 33, 290
Sneddon, I. N. *ed.* 84, 447, 455
Sneedon, J-B. O. 152
Snell, J. L. 262
Society for Analytical Chemistry 282, 612
Society for Endocrinology 470, 531
Society for Industrial Microbiology 556
Society for Water Treatment and Examination 612
Society of Chemical Industry 375, 557
Society of Cosmetic Chemists of Great Britain 177
Society of Dyers and Colourists 246
Sokolovski, V. V. 486
Soley, D. 251
Solid state physics in electronics and telecommunications 460, 518
Somerville, J. M. 91
South Africa. Council for Scientific and Industrial Research, 613
Soviet research in geophysics 589, 710
Spark machining 723
Speakman, J. C. 337
Spice, J. E. *tr.* 585
Spitzy, K. H. *ed.* 28
Spooner, P. 189
Sprat, T. 66
Spring, K. H. 277
Sprott, W. H. J. *ed.* 70, 320
Stableforth, A. W. *ed.* 148
Stacey, M. 523
Stamp, L. D. *ed.* 284
Stanford, E. G. *ed.* 292
Stanford Research Institute 387
Steeds, W. 361
Stekhoven, G. S. *comp.* 362
Steward, F. C. *ed.* 146, 649
Stewart, J. 439
Stickland, A. C. *ed.* 638
Stillman, N. 508
Stone, A. 421
Stone, M. H. *ed.* 697
Stone, R. 71
Storer, W. O. 574
Strafford, N. *ed.* 147
Strahler, A. N. 590
Strasser, F. 724
Strotz, R. *ed.* 68
Structural mechanics 401
Strughold, H. *ed.* 599
Stuart, A. 135
Stubbs, A. E. *tr.* 102
Stubbs, F. W. *ed.* 163
Sulfur in proteins 29
Suppes, P. 451
Sutton, *Sir* G. *ed.* 207
Swainger, K. 142
Swanson, E. B. *comp.* 740
Swineford, A. *ed.* 345
Sykes, J. B. *tr.* 94, 329
Szent-Györgyi, A. 715

T

Tai Tsun Wu 354
Takács, L. 700
Tannenbaum, H. E. 508
Tansley, A. E. 390

Taube, H. *ed.* 588
Taylor, C. F. 482
Taylor, C. P. 744
Taylor, *Sir* G. I. 269
Taylor, H. F. 115
Taylor, P. 289
Tedynskii, O. S. 371
Tenenbaum, M. *tr.* 258
Terras, J. A. 356
Teuscher, H. 617
Textile Institute 246
Thelen, R. J. *comp.* 433
Thieme, J. G. *tr.* 541
Thomas, A. G. 299
Thomas, D. A. *ed.* 225
Thomson, L. M. Milne-, 275
Thorn, R. B. 659
Thornley, J. H. 303
Thornton, N. 365
Thrower, S. E. *rev.* 360
Thwaites, B. *ed.* 402
Tilton, E. M. *comp.* 440
Timmerhaus, K. D. *ed.* 453
Timoshenko, S. 151
Tinkler, J. *ed.* 398, 488
Tipson, R. S. *ed.* 409
Tobolsky, A. V. 709
Todd, J. A. *ed.* 264
Tolansky, S. 704
Tooth, E. S. *ed.* 551
Town, H. C. 352
Traverso, A. A. Buzzati-, 464
Trefethen, J. M. 26
Troup, G. 48
Truhaut, T. *ed.* 147
Tucker, A. W. *ed.* 450, 509
Tucker, C. A. 322
Tudbury, C. A. 728
Turkevich, J. *ed.* 94
Turnbull, D. *ed.* 457
Turner, L. 744
Turner, R. P. 300

U

U.S. Air Force Geophysics Research Directorate 526
U.S.S.R. Academy of Sciences 329
Ubbelohde, A. R. 471
Uhlenbeck, G. E. 83
Ulam, S. *ed.* 84, 447, 455
Umbreit, W. W. *ed.* 558
Unesco 689
Ungava Bay papers 441
University of Denver 708
University of Rochester School of Medicine and Dentistry 435
Uslan, D. 159
Uvarov, E. B. *tr.* 101

V

Vajda, S. 452
Valkenburgh, M. E. Van, 655
van Amerongen, C. *tr.* 730
van der Pol, B. 83
van der Wijk, R. *ed.* 529
van Mansum, C. J. *comp.* 380
van Mieghem, J. *ed.* 283, 479
Van Valkenburgh, M. E. 655
Van Valkenburgh, Nooger & Neville 153
Vandenkerckhove, J. 232
VanderWerf, C. A. 339, *ed.* 584
Vanner, M. J. 487
Vanstone, E. 667
Vasil'ev, V. P. 641
Vaucouleurs, G. 268
Veubeke, B. F. de, 232
Vickers, J. 190
Vickery, R. C. 588
Vishniac, R. *ill.* 491
Viswanathan, C. G. 10
Voisin, A. 733
von Kármán, T. 334–5, *ed.* 481, 601
Vries, L. De, *ed.* 243

W

Wagner, H. 498
Wagner, T. C. G. 49
Waid, J. S. *ed.* 718
Wait, J. R. *ed.* 202
Wait, W. 582
Waldron, J. D. *ed.* 103
Waldron, M. B. 93
Walford, A. J. *ed.* 11
Walker, P. M. B. *ed.* 716
Wang Ling 132, 316
Ward, F. R. *ed.* 536
Ward, H. B. 107
Ward, W. E. 129
Warfield, J. N. 123
Waste treatment 547
Waterman, T. H. 532
Watson, S. J. 734
Webster, A. V. *ill.* 287, 289
Wehr, M. R. 211
Weller, J. M. 411
Wells, F. H. 156
Welsby, V. G. 485
West, J. C. 725
West, J. R. *ed.* 309
Westbrook, J. H. *ed.* 472
Westwater, F. L. 266
Westwood, W. 376
Wheldon, H. J. 553
Whipple, G. C. 107
White, J. L. *ed.* 18
Whyte, R. O. 492–3
Wijk, R. van der, *ed.* 529
Wilcock, W. L. *ed.* 540
Wilf, H. S. *ed.* 573
Wilkins, H. P. 330
Wilkinson, W. L. 336
Wilks, S. S. *ed.* 176
Williams, A. 125
Williams, B. R. 173
Williams, D. 614
Williams, H. T. *ed.* 567
Williams, R. C. *ed.* 105
Wilson, A. C. 240
Wilson, E. D. 149
Wilson, F. 428

Wilson, G. F. 429
Wilson, H. A. 92
Wilson, J. R. *ed.* 613
Woinowsky-Krieger, S. 151
Wolf, E. 270
Wolfrom, M. L. *ed.* 409
Woodford, A. O. *ed.* 22
Woods, S. D. 341
Wooldridge, D. E. *ed.* 247
Wooldridge, S. W. 284
World list of abbreviations 693
Wormall, A. 98
Woronowicz, L. 668
Worsnop, B. L. *ed.* 48, 91, 277, 702
Wright, E. M. 395
Wu, Tai Tsun 354
Wulff, J. 115

Y

Yapp, W. B. *ed.* 224
Yarborough, E. H. Cooke-, 353
Yatmirskii, K. B. 641
Year book of education 569
Yoder, E. J. 235
Young, H. P. *ed.* 155
Yourgrau, W. 705

Z

Zabin, I. 522
Zádor, P. *tr.* 700
Zeltovich, I. B. 675
Zemansky, M. W. 140
Ziman, J. M. 278
Zinn, W. H. *ed.* 229
Zuidema, H. H. 311

CLASSIFICATION INDEX

001 General knowledge 1–4
002 Documentation 381
007 Human work 126, 382
01 Bibliography 5–6, 504, 684–5
02 Librarianship 7–11, 383–5, 686–9
05 Periodicals 12
06 Institutions, Associations 65–6, 566
07 Journalism 319

3 SOCIAL SCIENCES 67–78, 127–9, 191–5, 320–6, 386–90, 442–5, 505–8, 567–9, 622–3, 690–2
31 Statistics 67
33 Economics 68–71, 193–4, 321–2, 386–7, 505–6, 567, 690
37 Education 72–6, 127–9, 195, 323–6, 388–90, 444–5, 507–8, 568–9, 622–3, 691–2
38 Trade, Commerce, Communications 77–8

4 PHILOLOGY 79–80, 130–1, 255, 693
413 Lexicography 79–80

5 NATURAL SCIENCES 13–32, 81–111, 132–46, 196–222, 256–89, 327–45, 391–421, 446–76, 509–32, 570–97, 624–49, 694–721
51 Mathematics 81–6, 196–9, 258–66, 393–5, 446–52, 509–14, 571–4, 626–8, 697–700
52 Astronomy, Surveying, Geodesy 15–17, 200–2, 267–8, 328–30, 515, 629
53 Physics 18–21, 87–95, 133–42, 203–11, 269–79, 331–8, 396–402, 453–61, 516–19, 575–81, 630–9, 701–7
539.1 Nuclear physics 93–5, 210–11, 279, 337–8, 461, 519, 580–1, 706–7
54 Chemistry 22–4, 96–103, 143–4, 212–17, 280–2, 339–43, 403–9, 462–72, 520–3, 582–8, 640–1, 708–9
548 Mineralogical sciences 22–4, 143–4
55 Geology 25–6, 218–19, 283–4, 344–5, 410–13, 473–4, 524–7, 589–90, 642, 710
551.5 Meteorology 27, 412–13, 526–7
57 Biology 28–9, 104–7, 220–2, 285–6, 414–17, 591–2, 643–8, 711–16
577.1 Biochemistry 28–9, 222, 415–17, 592, 647–8
58 Botany 30–2, 145–6, 287–9, 475–6, 528–9, 593–5, 649, 717–18
59 Zoology 108–11, 418–21, 530–2, 596–7, 719–21

6 APPLIED SCIENCES 33–64, 112–23, 147–84, 223–52, 290–317, 346–80, 422–34, 477–503, 533–65, 598–621, 650–83, 722–44
61 Medical sciences 33, 147–9, 223–4, 290, 346–7, 477–80, 598–600
62 Engineering 34–53, 112–17, 150–65, 225–35, 291–307, 348–62, 422–6, 481–90, 533–49, 601–16, 650–60, 722–30
620.1 Materials testing 34–6, 150–1, 225–6, 291–2, 348, 533, 650
621 Mechanical and electrical engineering 37–49, 112–16, 152–61, 227–31, 293–300, 349–56, 422–6, 481–5, 534–41, 601–8, 651–5, 722–8
621.039 Nuclear engineering 116, 229–31, 535–6, 604–5
621.3 Electrical engineering 37–49, 153–61, 293–300, 353–6, 483–5, 537–41, 606–8, 653–5, 726–8
622 Mining 357, 609, 656
623 Military and naval engineering 232, 301
624 Civil engineering 162–3, 302–3, 358–9, 486–7, 542–3, 610, 729–30
625 Rail and road engineering 233–5, 544–6, 657
626 Hydraulic engineering 658
627 Natural waters and channels 611, 659
628 Public health engineering 117, 360, 547, 612–13
629 Transport engineering 50–3, 164–5, 304–7, 361–2, 488–90, 548–9, 614–16, 660
629.13 Aeronautical engineering 52, 164–5, 488, 614–15, 660
629.19 Astronautical engineering 53, 489–90, 616
63 Agriculture 54–6, 166–72, 236, 427–9, 491–3, 550, 617–18, 661–8, 731–6

636 Livestock 171–2, 618, 735–6
65 Commerce, Organization, Communications 57, 173–6, 363, 551–3, 619, 669–70
656 Transport 551–2
657 Accountancy 364–5, 553
658 Industrial management 57, 173–6, 669–70
66 Chemical technology 58–9, 118–19, 177–9, 237–40, 308–11, 366–76, 430–4, 494–8, 554–8, 620–1, 671–5, 737–40
67/68 Manufactures 60–2, 120–3, 241–9, 312–16, 377–9, 499–503, 559–63, 676–80, 741–3
681 Precision mechanisms 122–3, 247–9, 314–16, 378–9, 502–3, 679–80
69 Building 63–4, 180–4, 250–2, 317, 380, 564–5, 681–3, 744

7 FINE ARTS 124–5, 185–90, 253–4, 318, 435–40
72 Architecture 124–5
77 Photography 185–90, 253–4, 435–40

9 GEOGRAPHY, BIOGRAPHY, HISTORY 441
91 Geography 441

SUBJECT INDEX

A

Abelian groups 447
Abstracts, chromatography 521
Accountancy 364–5, 553
  library 383
Adhesives 369
Aerodynamics 138, 334–5, 396, 398, 402
Aeronautics 356, 527
  engineering 52, 164–5, 488, 614–15, 660
Africa, fauna 694
Agriculture 54–6, 104, 166–70, 427–9, 491–3, 550, 617–18, 661–8, 731–6
  dictionary 236, 668
  hydraulics 658
  libraries 686
  policy 567
  year book 664
Air pollution 147, 479
Algae 30
Algebra 512–13, 628
Algebraic curves 86
Alkaloids 468
Aluminium 681, 683
America
  associations 65
  business directories 684
  fauna and flora 107
Amplifiers 44, 46
Analgesics 347
Analysis
  chemical 214, 280, 466
  economic 68
  mathematical 450
  qualitative 708
  quantitative 280
  radiation 582
  statistical 85, 198
Anatomy 346
Antibiotics 28
Apiary 550
Applied sciences 33–53, 112–23, 147–84, 223–52, 290–317, 346–80, 422–38, 477–503, 533–65, 598–621, 650–83, 722–44
Architecture 124–5, 682–3
  naval 401, 566
Associations, American 65
Astronautics 53, 304, 489–90, 616
Astronomy 5, 15–16, 200–2, 267, 328–30, 383, 515, 629
  Chinese 132, 316
  clocks 316
  dictionary 131
  encyclopedia 268
Atomic energy 79, 95, 116, 462
Atomic theory 672
Automation 247, 349
Automobile engineering 50–1

B

Bacteriology 148
Bees 550
Beryllium 368
Bibliography 5–6, 504, 684–5
  cancer 223
  education 323
  gas 740
  journalism 319
  lepidoptera 420
  oil 740
  packaging 228
Biochemistry 28–9, 98, 222, 415–17, 469, 584, 592, 647–8
Biology 28–9, 104–6, 220–2, 224, 285–6, 414–17, 428, 430, 591–2
  freshwater 107
Biophysics 105, 711
Birds 721
Boats 305
Botany 31, 145–6, 287–9, 475–6, 528–9, 593–5, 649, 717–18
  California 32
  Canada 441
  freshwater 107
  North America 107
  Norway 528
  saltmarsh 344
  seawater 30
Boyle, Robert, *1627–91*, 624
Brain 346
Broaching 602
Budgets 365
Building 182–4, 250–1, 317, 564–5, 682
  aluminium 681, 683
  chimneys 744
  concrete 252, 744
  dictionary 380
  lighting 57
  research 63
  sites 181
  specifications 64
  staircases 180
Business management 189

C

Calculus 84, 266, 451, 511
California, flora 32
Cancer, bibliography 223
Carbides 426, 739
Carbohydrates 523
Cast iron 376
Cataloguing 10, 688
Catalysis 583
Celestial mechanics 304, 316
Chemical technology 58–9, 118–19, 177–9, 237–40, 308–11, 366–76, 430–4, 494–8, 554–8, 620–1, 671–5, 737–40
Chemistry 22–4, 96–100, 118, 143–4, 216–17, 340, 343, 403, 407–8, 462, 467, 582–4, 641, 708–9
  analytical 214, 280, 282, 404, 466, 521
  dictionaries 1, 131
  experimental 213, 463
  fluorine 281
  heterocyclic 342
  inorganic 101, 281, 405–6, 465, 472, 520, 587–8, 640
  organic 102, 212, 215, 274, 339, 341–2 409, 468–70, 522–3

physical 406, 585
radiation 340, 464
structural 586
Chimneys 744
China
astronomical clocks 316
science and civilization 132
Chromatography 408, 467, 470, 521
Chromosomes 414
Cinematography 186, 189
dictionary 188
encyclopaedia 253
Classification 384, 687
Clays 345
Climatology 526
Clocks 316
Cockle Park Farm 427
Commerce 363, 551
Communications 12, 551–2, 569, 619
Computers 122–3, 247–8, 295, 314, 378–9, 382, 449, 573, 679
Concrete 542
prestressed 543, 730
reinforced 252, 610
roads 544
structures 730, 744
Conductivity 206, 576
Corrosion 226
protection 150
Cosmetics 119, 177, 374
Cosmology 267, 515
Cotton 56
Crops 167, 169, 493
Crustacea 532
Cryogenics 458
Crystallography 24
Crystals 135
Cultivation 493
Cybernetics 126
Cytology 643, 714, 716

D

Dairy science 55, 667
Damping 425
Data processing 422
Deformation 142
Denmark, education 72
Dermaptera 108
Detonation 675
Dictionaries
abbreviations of organizations 693
agriculture 236, 668
astronomy 131
automobile 362
building 380
chemistry 131
cinematography 188
electrical engineering 293
fishes 530
mathematics 131
mosses 529
multilingual 79–80, 236, 293, 362, 380, 546
nuclear physics 79
physics 131
Polish 668
railways 546
rubber 80
sound recording 188
textile 243, 377
Dielectrics 205
Diesel engines 112, 114
Differential equations 572
Diffraction 502
Directories
agricultural libraries 686
American organizations 65, 684
music 685
scientific instruments 680
wool trade 743
Diseases, plant 170, 476
Distillation 737
Documentation 381, 687
Drainage 360
Draughtsmanship 722
Drawings, botanical 145
Drugs 347
Dynamics 90, 133, 207, 705

E

Earth 26
Economics 68–71, 78, 321–2, 387, 506, 567, 690
bibliography 442
fibre industry 505
fuel and power 386
mathematics 193–4
shipbuilding 549
Education 73, 75–6, 325, 388–90, 507–8, 569, 692
bibliographies 6, 323
Danish 72
encyclopedias 445
English 622
mathematics 574
national 129
primary 74, 128, 568
secondary 127, 444, 691
teachers 324
technical 326
university 195
Elasticity 19, 89, 142, 516
Electrical networks 82
Electricity 91, 277
Electrochemistry 99, 217
Electrodialysis 613
Electromagnetism 154, 272, 454, 517, 537
Electronics 43, 153, 156, 278, 300, 460, 518, 538–40
Electroplating 160
Employment 322
Encyclopedias
astronomy 268
cinematography 253
textiles 245
Engineering 19–20, 26, 34–6, 118, 150–1, 225–6, 291–2, 348, 357, 431, 510, 533, 609, 656, 738
aeronautical 52, 164–5, 488, 614–15 660
astronautical 53, 89–90, 616
automobile 50–1, 361–2

Engineering (*continued*)
chemical 58, 671
civil 162–3, 231, 302–3, 358–9, 486–7, 542–3, 610, 659, 729–30
dictionary 293
electrical 37–49, 153–61, 293–300, 353–6, 454, 483–5, 497, 511, 537–41, 653–5, 726–8
foundry 115
hydraulic 658
marine 305, 307, 548–9, 611, 615
mechanical 112–15, 152, 227–8, 349–52, 422–6, 481–2, 534, 601–2, 650–2, 722–8
military 232, 301
nuclear 116, 229–31, 535–6, 548, 604–5
public health 117, 360, 547, 612–13
rail and road 233–5, 544–6, 657
rubber 561
textile 244
traffic 552
transport 304, 306, 488–90
English, teaching 76
Equations, differential 197, 393
Evaporation 213
Evolution 644
Experiments 339

F

Factory lighting 57
Fats 469, 522
Ferns 289
Fertilizers 166, 732
Fibres 242
animal 676
natural 505
synthetic 241, 505
Finance
national 71
public 69
Fine arts 124–5, 185–90, 253–4, 318, 435–40
Fish, Hawaiian 530
Flames 620
Flora, *see also* plants
Indian 31
Norwegian 528
Flour 555
Fluid mechanics 136, 138, 204, 207, 269, 336, 488
Food 375, 433, 557
Forestry 663
Foundations 303
Foundries 115
Fracture 225
Frames 302, 359
Fruit, *see also* mango, pineapple, 54, 666, 731
Fuel
economics 386
nuclear 310
rocket 494
Fungi 170, 593, 718

G

Galvanizing 178
Gas 578
bibliography 740
turbines 481, 603
Gemmology 144
General knowledge 1–4, 186
Genetics 106, 221, 285, 531, 713
Geodesy 17, 200–2
Geography 441
Geology 25–6, 283–4, 410–11, 441, 473–4, 524–5, 589–90, 642, 710
coastal 218
economic 344–5
petroleum 219
Geometry 81, 86, 448, 509
Geomorphology 25, 284
Geophysics 283, 474, 589, 710
German language, textile dictionary 243
Glass 496, 554, 621, 677
Goldsmithery 60
Graphite 471
Grass 169, 492, 733–4

H

Heating 184, 250–1, 565
Heredity 285
History of science 14, 66, 624, 695–6
Hooke, Robert, *1635–1703*, 624
Hormones 648
Horology 316
House journals 12
Hudson Strait Expedition 441
Human work 126, 382
Hydrodynamics 207, 275
Hymenoptera 111

I

Impact 703
Indexing 2
India, flora 31
Industrial society 192
Industry 387
cotton 70
management 4, 57, 173–6, 669–70
Information work 381
Insecticides 662
Insects, *see also* bees, dermaptera, hymenoptera, lepidoptera, mecoptera, megaloptera, mosquitoes, neuroptera, 108, 110–11, 419–21, 428, 720
Institution of Naval Architects 566
Instruments 17, 97, 680
Insulation 240
Internal combustion engines 423, 482
Invertebrates, Rennell Island 13
Isotopes 98, 116, 405, 520

J

Jigs 352
Journalism, bibliography 319

L

Laboratory apparatus 463
Lepidoptera, bibliography 420
Librarianship 7–11, 383–4, 686–9
film 688
Libraries
accountancy 383

agriculture 686
college 385
national 689
planning 9
U.S.S.R. 8
Livestock, *see also* pigs, sheep, 171–2, 618, 719, 735–6
Logic 320, 514, 699
science 327
Low-temperature techniques 238
Lubricating oils 311

M

Magnesium 674
Magnetism 485, 702, 727
Malaria 600
Mango 666
Manufactures, *see also* clocks, fibres, metalwork, paper, plastics, rubber, textiles, 60–2, 120–1, 241–6, 312–16, 377, 499–501, 559–63, 676–8, 741–3
Market research 363
Markov chains 262
Masers 161, 518
Materials testing 34–6, 150–1, 225–6, 291–9, 348, 533, 650
Mathematics 21, 81, 83–6, 196–8, 258–9, 262–6, 383, 393–5, 446, 448–9, 451–2, 509, 511–14, 626, 628, 697–8, 700
analysis 450
applied 207, 510, 571–4
Chinese 132
dictionary 131
philosophy 699
programming 82
theory 199, 260–1, 447, 571, 627
Measurement 456, 502
Mechanics 207, 703
celestial 304, 316
structural 401
Mecoptera 110
Medical sciences 33, 147–9, 223–4, 290, 346–7, 477–80, 598–600
Megaloptera 110
Merchant shipping 77
Metallography 533
Metallurgy 178, 308, 366–8, 371, 373, 376, 472, 672–4
Metalwork 60, 499
Meteorology 27, 412–13, 441, 526–7, 589
Meters 298
Microbiology 430, 556, 558, 645
Microphotography 187, 436, 440
readers 439
Microscopy 135, 597
Microtexts 437
Military engineering 232, 301
Mineralogy 22–4, 143–4, 407
Mining 357, 609, 656, 675
Molecular physics 706
Moon 16, 329–30
Morphology 645
Mosquitoes 419
directory 421
Mosses 289, 529
Mycology 593

N

Natural history 13, 441
Natural sciences 13–32, 81–111, 131–46, 196–222, 256–89, 327–45, 391–421, 446–76, 509–32, 570–97, 624–49, 694–721
Naval architecture 401, 566
Neuroptera 110
Newton, Isaac, *1642–1727*, 624
Niobium 59
Nomenclature 1
Greek 3
Latin 3
Norway, flora 528
Nutrition 149, 596

O

Oceanography 524–5
Oil
bibliography 740
industry 497
Optics 135, 141, 270, 400, 575
Ordnance 232
Oscillators 48, 300

P

Packaging, bibliography 228
Paints 498
Palaeontology 391
Paper 559
Patents, American 191
Pavements 235
Perfumes 119, 374
Periodicals 12
Pests 54, 168, 428–9
control 661, 665
Petrography 473
Petroleum 357, 370, 620
Pharmacology 478
Philology 79–80, 130, 255, 690
Phonons 278
Photography 185–90, 253–4, 435–40
Photomicrography 438
Physics 18–21, 83, 87–92, 133–42, 203–9, 269–78, 331–6, 396–402, 453–60, 516–18, 576–9, 630–9, 701–5
crystal 24
dictionary 131
nuclear 79, 93–4, 210–11, 279, 337–8, 405, 461, 519, 575, 580–1, 706–7
Physiology, 477, 480, 598
plant 146
Pigs 172
breeding 719
Pineapple 731
Plants, *see also* ferns, grass, mosses, shrubs, trees, weeds, 169, 289, 492, 529, 733–4
diseases 476, 594
Indian 31
Norwegian 528
physiology 649
seed 475

Plastics, *see* polymers
Pollution 224, 547, 591
Polymers 62, 120–1, 215, 241, 305, 313, 340, 500–1, 516, 561–3, 677–8, 709, 741–2
  classification 384
  extrusion 560
Ports 551
Precision mechanisms 122–3, 247–9, 314–16, 378–9, 502–3, 679–80
Probability 83, 85, 394, 452, 700
Productivity 506
Prospecting 410
Proteins 29, 212, 403
Public health 147
  engineering 117, 360, 547, 612–13
Publishing 437
Punched cards 503

Q

Qualitative analysis 708
Quantitative analysis 408
Quantum mechanics 455
Quantum theory 705
Queueing 627

R

Radar 296
Radiation 271, 340
  analysis 582
  chemistry 464
Radioactivity 210, 338
Radiobiology 712
Radiocommunication 48, 158, 294, 296, 356, 726
Radiography 435
Railways 545
  dictionaries 546
Ray, John, *1628–1705*, 624
Reading 388
Refrigeration 227
Relativity 87–8, 154, 632, 639
Rennell Island, invertebrates 13
Research 4, 257
  biochemical 222
  building 63
  solar energy 5
  space 306
  zoological 220
Resins 237
Resonance 457
Rheology 209, 635
Riemann surfaces 509
Road traffic 361, 552
Roads 544
Rockets 232, 301
Royal Institution of Naval Architects 566
Royal Society 66
Rubber 313, 561
  bonding 96
  dictionary 80
Russian language 255
  scientific 130

S

Saltmarshes 344
Satellites, artificial 306
Scandium 588
Schools
  comprehensive 325
  primary 389, 507
  secondary 445, 691
Science
  applied 33–53, 112–23, 147–84, 223–52, 290–317, 346–80, 422–38, 477–503, 533–65, 598–621, 650–83, 722–44
  history 66, 624, 695–6
  logic 327
  teaching 507–8
Sea defence 659
Sea transport 77, 551
Seaplanes 615
Seismology 589, 710
Semiconductors 483
Servomechanisms 534, 651, 725
Sex 531
Sheep 618
Shipbuilding, economics 549
Ships, motor 307
Shrubs 287
Silversmithery 60
Soap 119, 374
Social sciences 67–71, 127–9, 191–6, 320–6, 386–90, 442–5, 505–8, 567–9, 622–3, 690–2
  bibliography 442
Soil mechanics 358, 486–7
Soil science 491, 617
Solar energy 5
Solar system 17
Sound recording, dictionary 188
South Africa, livestock 736
Spectra 276
Spectrometry 103
Spectroscopy 273–4, 575
Staircases 180
Statics 207
Statistical analysis 262–3, 265, 626
Statistics 67, 394, 706
Steel 179
  structures 729
Steroids 470, 584
Stockbreeding 171, 713, 735
Stratigraphy 411
Strength of materials 34–6, 151, 225, 348, 650
Structural mechanics 401
Sugar cane 431
Sulphur 29
Sulphuric acid 309
Surveying 15, 200–2, 233–4, 629

T

Tantalum 59
Teaching 75, 390
  English 76
  primary 128, 324, 568
  science 128, 399, 445
  secondary 127
  training 324
Telecommunications 48, 161, 460, 518

Teleprinting 541
Television 157
Textiles 61, 242, 244, 246, 312
  dictionary 243, 377
  encyclopedia 245
Thermochemistry 343
Thermodynamics 18, 99, 137, 208, 332–3, 343, 453, 458–9, 631, 634, 641
  applied 424
Thermoelectricity 636, 728
Ticks 418
Tin, 239
Tools, cutting 352
Toxicity 647
Trade 77
  international 78
Traffic, road 552
Transformers 484
Transistors 41, 353, 608
Translation, mechanical 382, 619, 679
Transport
  road 552
  sea 551
Trees 287, 663

U

U.S.A.
  associations 65
  business directories 684
  patent office 191

V

Valency 216, 715
Value 321
Varnishes 498
Ventilation 184, 250, 317, 565
  mines 656
Veterinary medicine 33, 148, 290, 478
Vibration 457, 579, 701

W

Waste 547
Water supply 360, 612–13
Waves 331, 397
  acoustic 630
  electromagnetic 354, 630
Weeds 428, 717
Welding 652
Wilkins, John, *1614–72*, 624
Wool trade, directory 743
Work study 174–5
Workshop practice 228, 350, 426, 724
Wren, Christopher, *1632–1727*, 624

Y

Yttrium 588

Z

Zinc 178
Zoology, *see also* crustacea, fish, insects, pigs, ticks, 108–11, 418–21, 441, 530–2, 596–7, 719–21

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HMSO	Her Majesty's Stationery Office
McG-H	McGraw-Hill
O & B	Oliver & Boyd
OUP	Oxford University Press
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Indexes and indexing: guide to the indexing of books, and collections of books, periodicals, gramophone records, films and other material, with a reference section and suggestions for further reading. 2nd ed. rev. and enl. Benn, 1959. 200pp., illus. 21*s*.
A Covers every aspect of indexing and all types of index.

NIBAKKEN, O. E. 3
Greek and Latin in scientific terminology. Ames, Iowa State College P., 1959. xi,321pp. $5.95.
B Emphasis is laid on understanding nomenclatural rules and basic language structure in order to produce correct scientific terminology.

NOLTINGK, B. E. 4
The human element in research management. Amsterdam, London, [etc.], Elsevier, 1959. vii,91pp., diagrs., bibliog. 9*s* 6*d*.
A Discussion of the personnel management aspect of laboratory administration. Distributed in the British Commonwealth and U.S.A. by Van Nostrand.

01 BIBLIOGRAPHY

ASSOCIATION FOR APPLIED SOLAR ENERGY 5
Applied solar energy research: a directory of world activities and bibliography of significant literature, ed. by J. S. Jensen. 2nd ed. Phoenix (Arizona), Association for Applied Solar Energy in co-operation with Stanford Research Institute, California, 1959. xxi,275pp., bibliog.
D

AXFORD, W. A., *comp.* 6
Handicapped children in Britain: their problems and education; books and articles published in Great Britain from the 1944 Education Act to 1958. Library Association, 1959. 53pp. 4*s*. *Library Association, special subject lists, ed. by Harold Smith, no. 30.*
D

02 LIBRARIANSHIP

CARTER, M. D. *and* BONK, W. J. 7
Building library collections. N.Y., Scarecrow P.; London, B & S, 1959. vi,7–259pp., bibliog. $6; 64*s*.
B Principles and procedures to be followed in book selection and acquisition.

HORECKY, P. L. 8
Libraries and bibliographical centers in the Soviet Union. Bloomington, Indiana University, 1959. xviii,287pp., diagrs., bibliog. $3.
B First detailed survey in English of the organization of libraries and documentation services in the U.S.S.R.

MEVISSEN, W. 9
Büchereibau/Public library building: [ins Englische ubertragen von Sybil Hamilton]. Essen, Meyer; N.Y., Heinman, 1958. 256pp., illus., diagrs. $12.50.
B Well-illustrated book on the planning and equipment of libraries, with text in German and English.

VISWANATHAN, C. G. 10
Cataloguing theory and practice: a guide to the student of library science. 2nd ed. Banaras, Hindu U.P.; London, Blunt, 1959. xvii,337pp. *Rs* 16; 24*s*.
B Revised and enlarged edition of a textbook which first appeared in 1954.

WALFORD, A. J., *ed.* 11
Guide to reference material. Library Association, 1959. viii,543pp. 80*s* (60*s* to members).
D Principal sources of reference in the form of bibliographies, indexes, abstracts, dictionaries, etc., in every major subject field.

05 PERIODICALS

HALLEY, W. C. 12
Employee publications: theory and practice of communications in the modern organization. Philadelphia, N.Y., Chilton, 1959. xi,139pp., illus. $5.
A Appraisal of principles and problems involved in producing effective house journals.

5 NATURAL SCIENCES

13
NATURAL history of Rennell Island, British Solomon Islands: scientific results of the Danish Rennell Expedition, 1951, and the British Museum (Natural History) Expedition, 1953; vol. 2 (invertebrates, pars). Copenhagen, Danish Science P. on behalf of the University, Copenhagen, and the British Museum (Natural History), London, 1959. 234pp., plates, tables, diagrs. 50*s*.
C Groups described include cestodes, oligochaetes, molluscs, diplopods, chilopods, arachnides, and many insect orders.

SINGER, C. 14
A short history of scientific ideas to 1900. Oxford, Clarendon P., 1959. xx, 525pp., illus., diagrs. 35*s*.
A Supersedes the author's *A short history of science*, 1941, with more adequate treatment of the physical sciences.

52 ASTRONOMY

FIRSOFF, V. A. 15
Strange world of the moon: an enquiry into lunar physics. Hutchinson, 1959. x,226pp., plates, tables, diagrs. 25*s*.
A Popular but detailed account of moon's surface and sub-surface structure and of its possible atmosphere, with mathematical appendixes and excellent photographs.

KURTH, R. 16
Introduction to the mechanics of the solar system. London, [etc.], Los Angeles, Pergamon P., 1959. ix,177pp., tables, diagrs. 42*s*; $6.50.
B–C Treatment of celestial mechanics at intermediate (undergraduate) level, which emphasizes astronomical aspects and physical principles rather than formal mathematics.

526 Geodesy

CLENDINNING, J. 17
Principles and use of surveying instruments. 2nd ed. Blackie, 1959. x,206pp., illus., plates, diagrs. 25*s*.
B Suitable for students taking the examination in surveying for the AMICE.

53 PHYSICS

BOCKRIS, J. O'M. *and others, eds* 18
Physico-chemical measurements at high temperatures, ed. by J. O'M. Bockris, J. L. White, and J. D. Mackenzie. London, Butterworths Scientific; N.Y., Academic P., 1959. viii,394pp., plates, tables, diagrs., bibliogs. 75*s*; $13.50.
B–C Covers fundamental aspects and most important measurements and techniques. Experimental data and results are presented in tables; clear illustrations. By twenty experts.

GODFREY, D. E. R. 19
Theoretical elasticity and plasticity for engineers. Thames & Hudson, 1959. x,312pp., plates, diagrs. 42*s*.
B Mathematical text for personal study by engineering undergraduates. Worked examples.

PRAGER, W. 20
An introduction to plasticity. Reading (Mass.), London, Addison-Wesley, 1959. viii,148pp., diagrs. $6.50; 49*s*. *Addison-Wesley series in the engineering sciences: mechanics and thermodynamics, ed. by H. W. Emmons and E. Reissner.*
C Plastic behaviour of materials in the structural and mechanical field.

RICHARDS, P. I. 21
Manual of mathematical physics. Pergamon P., 1959. xi,486pp., tables, diagrs. 110*s*.
B–C

54 CHEMISTRY

548 Mineralogical sciences

BERRY, L. G. *and* MASON, B. 22
Mineralogy: concepts, descriptions, determinations, ill. by R. Hayward. San Francisco, Freeman; [London, B & S], 1959. xii,612pp., illus., tables, diagrs. $8.75; 74*s* 6*d*. *Books in geology; eds J. Gilluly and A. O. Woodford.*
B Modern concepts of crystallography and crystal chemistry are stated lucidly and the relationship of structure to properties is emphasized. Optical properties are omitted.

FARADAY SOCIETY 23
Crystal growth: discussions of the Faraday Society no. 5, 1949. Butterworths Scientific, 1959. 366pp., plates, tables, diagrs. 60*s*.
C Exact reproduction, with slightly improved clarity in the plates, of these discussions which include many important papers. Originally published Butterworths, 1949.

JASWON, M. A. 24
Studies in crystal physics: original papers and papers reprinted from *Research* vol. 11, 1958. Butterworths Scientific, 1959. [4],42pp., illus., tables, diagrs., bibliogs. 10*s* 6*d*.
A and C Five short essays in crystal physics, on perfect and imperfect lattices and some of their properties. Treatment somewhat mathematical.

55 GEOLOGY

DURY, G. H. 25
The face of the earth. Harmondsworth, Penguin, 1959. xiv,223pp., plates, diagrs., bibliog. 5*s*. *Pelican Books.*
B Well presented, up-to-date textbook on geomorphology for geographers and geologists.

TREFETHEN, J. M. 26
Geology for engineers. 2nd ed. Princeton (N.J.), [etc.], London, Van Nostrand, 1959. viii,632pp., illus., tables, diagrs., bibliogs. $7.50; 64*s*.

B–C Contains tables of the properties of rocks and for the identification of minerals.

551.5 Meteorology

BYERS, H. R. 27
General meteorology. 3rd ed. N.Y., [etc.], London, McG-H, 1959. x,540pp., illus., tables, diagrs. $9.50; 74*s*.

B–C Previous ed. 1944.

57 BIOLOGY

577.1 Biochemistry

28
PROCEEDINGS of the international congress of biochemistry, 4th, Vienna, 1958, ed. by O. Hoffmann-Ostenhof; vol. 5, biochemistry of antibiotics, ed. by K. H. Spitzy and R. Brunner. Pergamon P. for the organizers and the International Union of Biochemistry, 1959. xii,239pp., plates, tables, diagrs., bibliog. 68*s*. *Symposia, vol. 7.*

C

29
SULFUR in proteins: proceedings of a symposium held at Falmouth, Massachusetts, May, 1958. N.Y., London, Academic P., 1959. xi,469pp., illus., tables, diagrs. $14; 100*s*.

B–C Twenty-eight papers, many by well-known authorities, ranging from biochemistry to viruses and genetics. For biochemists and those working in related fields. Numerous references and good index. Well-edited discussions follow the papers.

58 BOTANY

BUTCHER, R. W. 30
An introductory account of the smaller algae of British coastal waters; part 1, introduction and chlorophyceae. HMSO, 1959. [2],74pp., plates, tables, bibliog. 25*s*. *Fishery investigations, series 4.*

B Methods of isolation and identification of all organisms of less than 20μ, characters of the major groups, taxonomic account of chlorophyceae within scope of the work. Two new genera and many new species described. First work covering this field.

DUTTA, A. C. 31
A class-book of botany (for intermediate, higher secondary, senior Cambridge, agricultural, medical, ayurvedic and veterinary students). 11th ed., rev. and enl. OUP, 1959. xviii,625pp., illus., tables, diagrs. 20*s*.

B Previous ed. 1956. Important Indian textbook, useful for large number of examples and drawings of Indian plants; with glossary of Latin and vernacular names.

MUNZ, P. A. *and* KECK, D. D. 32
A California flora, by P. A. Munz in collaboration with D. D. Keck. Berkeley, California U.P. for the Rancho Santa Ana Botanic Garden; London, CUP, 1959. [9],1681pp., illus., plate, tables. $11.50; 86*s* 6*d*.

C Designed equally for reference use and as a text for courses in systematic botany, taxonomy, ecology, and related fields.

6 APPLIED SCIENCES

61 MEDICAL SCIENCES

SMYTHE, R. H. 33
The examination of animals for soundness. Crosby Lockwood, 1959. x,145pp., diagrs. 13*s* 6*d*.
B Manual for veterinary students and surgeons; deals mainly with examination of the horse, with chapters on other farm and domestic animals.

62 ENGINEERING

620.1 Materials testing

CASE, J. *and* CHILVER, A. H. 34
Strength of materials: an introduction to the analysis of stress and strain. Edward Arnold, 1959. xi,390pp., plates, tables, diagrs. 35*s*.
B First part of new version of Case's *Strength of materials*. Covers most of requirements of undergraduates in their first two years.

PARADISE, R. S. *and* CHURCH, G. A. 35
Problems in strength of materials. Blackie, 1959. [x],278pp., tables, diagrs. 25*s*.
B Examples on stress analysis and structure problems, both clearly worked out in the text and with many more for the reader to work for himself. Answers are provided.

RASSWEILER, G. M. *and* GRUBE, W. L., *eds* 36
Internal stresses and fatigue in metals: proceedings of the symposium on internal stresses and fatigue in metals, Detroit and Warren, Mich., 1958. Amsterdam, London, [etc.], Elsevier, 1959. xii,452pp., illus., tables, diagrs., bibliogs. 37.50 *fl*; 72*s*; $11.
C Papers on internal stress, fatigue, and their inter-relation, from a symposium organized by General Motors, U.S.A. Distributed in the British Commonwealth and U.S.A. by Van Nostrand.

621 Mechanical engineering

621.3 Electrical engineering

BENSON, F. A. *and* HARRISON, D. 37
Electric-circuit theory. Edward Arnold, 1959. viii,371pp., tables, diagrs. 30*s*.
B Based on lectures given to post-intermediate students at the University of Sheffield. Starts with fundamentals and then deals with applications to both light-current and heavy-current engineering.

BUCKINGHAM, H. *and* PRICE, E. M. 38
Electro-technology for national certificate courses; vol. III. EUP, 1959. xiv, 261pp., illus., tables, diagrs. 16*s*. *The technical college series*.
B Text for S3 and A1 national certificate students of electrical engineering with examples and exercises. Supplements vols. I and II for S1 and S2 students.

CAMIES, B. S. 39
Principles of frequency modulation: applications in radio transmitters and receivers, and radar. Iliffe for *Wireless world*, 1959. viii,148pp., tables, diagrs. 21*s*.
B Covers all aspects of the subject. For radio amateurs as well as for students and qualified radio engineers.

DEKKER, A. J. 40
Electrical engineering materials. Englewood Cliffs (N.J.), [London], Prentice-Hall, 1959. ix,208pp., tables, diagrs., bibliogs. $6; 54*s*. *Electrical engineering series, ed. by W. L. Everitt.*

B Presents the basic physical processes responsible for the properties of materials. Covers atomic states, dielectrics, magnetics, conductivity, rectifiers and transistors. Methods and models used to determine material properties are given.

GILLIE, A. C. 41
Transistors. Prentice-Hall, 1959. xvi,262pp., diagrs. 42*s*.

B Behaviour of transistors in various applications; without advanced mathematics.

LEINWOLL, S. 42
Shortwave propagation. N.Y., Rider, 1959. vii,151pp., illus., tables, diagrs. $3.90. *Electronic technology series.*

B Thorough treatment of both electrical and geographical aspects.

MARK, D. 43
R-L-C components handbook. N.Y., Rider, 1959. vi,146pp., illus., tables, diagrs., bibliog. $3.50.

A Intended to supplement elementary technical works on electronics, to indicate special features of different types of resistors, capacitors, etc.

SCHURE, A., *ed.* 44
Low-frequency amplifier systems. N.Y., Rider, 1959. viii,70pp., diagrs. $1.80. *Electronic technology series.*

B Deals with design of amplifiers using valves or transistors.

SCHURE, A., *ed.* 45
Phototubes. N.Y., Rider, 1959. viii,88pp., tables, diagrs. $1.80. *Electronic technology series.*

B Introductory monograph, two chapters of theory being followed by information on electrode structures and circuits.

SCHURE, A., *ed.* 46
R-F amplifiers. N.Y., Rider, 1959. vii,96pp., tables, diagrs. $2.40. *Electronic technology series.*

B Deals with tuned amplifiers as used in receivers and transmitters, and covers transistor R-F amplifiers. Transistor values and transistor types are quoted, enabling the reader to verify the text experimentally.

SESHU, S. *and* BALABANIAN, N. 47
Linear network analysis. N.Y., Wiley; London, C & H, 1959. xiv,571pp., tables, diagrs., bibliog. $11.75; 94*s*.

C Unifies classical steady-state analysis and linear transient analysis; thorough treatment of the subject from fundamentals to advanced concepts including network synthesis, realizability conditions, and feedback and control systems.

TROUP, G. 48
Masers: microwave amplification and oscillation by stimulated emission. London, Methuen; N.Y., Wiley, 1959. x,168pp., tables, diagrs., bibliog. 13*s* 6*d*. *Monographs on physical subjects, ed. by B. C. Worsnop.*

C Theory and practice of masers, primarily as microwave amplifiers and oscillators, are discussed. For research workers.

WAGNER, T. C. G. 49
Analytical transients. N.Y., Wiley; London, C & H, 1959. xii,202pp., diagrs. $8.75; 70*s*.

B Concise text on mathematics of analysing the transient response of electrical networks, in particular by use of Fourier analysis and the Laplace transformation.

629 Transport engineering

CLEASE, A. G. D. 50
Automatic transmissions and two-pedal control: operation and servicing guide to fully-automatic and semi-automatic car transmissions. Newnes, 1959. viii, 9–232pp., illus., tables, diagrs. 21*s*.

A Practical guide to automatic transmission systems now in use in modern motor-cars, for major garages and service stations concerned with maintenance and overhaul.

MOSS, A. J. K. 51
Servicing guide to British motor vehicles; vol. 5, cars, commercial vehicles, diesel engines and components. Trader Publishing for *Motor trader* and *British engineering and transport*, 1959. xxiv,312,xixpp., illus., tables, diagrs. 67*s* 6*d*.

A Practical overhaul and servicing guide to over thirty different types of British road vehicles.

629.13 Aeronautical engineering

DESOUTTER, D. M. 52
Aircraft and missiles: what they are, what they do, and how they work. Faber, 1959. vii,213pp., illus., tables, diagrs. 36*s*.

A Background information and data for the enthusiast and general reader. Based on author's *All about aircraft*.

629.19 Astronautics

SEIFERT, H. S., *ed.* 53
Space technology. N.Y., Wiley; London, C & H, 1959. xvi,1174pp., illus., tables, diagrs., bibliogs. $22.50; 180*s*.

B Comprehensive exposition for graduate engineers and scientists of the fundamental principles on which long-range rocket flight is based.

63 AGRICULTURE

EBELING, W. 54
Subtropical fruit pests. Berkeley, University of California, division of agricultural sciences, 1959. vi,436pp., illus., plates. $7.

B Complete revision of author's *Subtropical entomology*, 1950.

GREAT BRITAIN. Ministry of Agriculture, Fisheries and Food 55
Machine milking. HMSO, 1959. viii,200pp., plates, tables, diagrs., bibliogs. 12*s* 6*d*. *Bulletin no. 177*.

B Comprehensive manual on use and construction of machines. Covers all aspects from physiology of lactation to layout of milking sheds and chemistry of rubber.

HUTCHINSON, *Sir* J. 56
The application of genetics to cotton improvement. Cambridge, CUP in association with the Empire Cotton Growing Corporation, 1959. viii,87pp., tables, bibliog. 15*s*.

C Succinct account of evolution in cotton and achievements in cotton breeding in the present century. Likely future trends are indicated.

65 COMMERCE. ORGANIZATION. COMMUNICATIONS

658 Industrial management

GREAT BRITAIN. Department of Scientific and Industrial Research. 57
Building Research Station
The lighting of factories, by M. J. Keyte and H. L. Gloag. HMSO, 1959. iv, 28pp., illus., tables, diagrs. 3*s* 6*d*. *Factory building studies, no. 2*.

B Guide to good general practice, well illustrated with diagrams and photographs. For factory managements and designers of industrial buildings; not highly technical.

66 CHEMICAL TECHNOLOGY

LEVA, M. 58
Fluidization. N.Y., [etc.], London, McG-H, 1959. 327pp., illus. $11.50; 89*s*. *McGraw-Hill series in chemical engineering.*
C

MILLER, G. L. 59
Tantalum and niobium. London, Butterworths Scientific; N.Y., Academic P., 1959. xxii,767pp., illus., plate, tables, diagrs., bibliogs. 120*s*; $21. *Metallurgy of the rarer metals, ed. by H. M. Finniston, no. 6.*
C Condensed and critically analysed information on all aspects of production, fabrication, and properties of these sister metals. Chemical analysis and metallographic techniques included with thermodynamic data as appendixes.

67/68 MANUFACTURES

MARYON, H. 60
Metalwork and enamelling: a practical treatise on gold and silversmiths' work and their allied crafts. 4th ed. rev. C & H, 1959. xvi,336pp., plates, tables, diagrs., bibliog. 45*s*.
B–C Previous ed. 1954. This standard work now gives additional information on metal casting, with some new illustrations and plates.

MEREDITH, R. *and* HEARLE, J. W. S., *eds* 61
Physical methods of investigating textiles. N.Y., London, Interscience, 1959. ix,411pp., plates, tables, diagrs., bibliog. $13; 88*s*.
B–C Based on course of lectures, Manchester 1956–7. Covers new methods, X-rays, infra-red spectroscopy, electron microscopy, etc., in connection with structure and properties.

MILLER, R. N. B. 62
Plastics moulds. Machinery, 1959. 60pp., diagrs. 5*s*. *Machinery's yellow back series, no 44.*
B Basic outlines of mould design and layout are condensed to a form useful in a small works engaged in the injection and compression moulding of plastic articles.

69 BUILDING

GREAT BRITAIN. Building Research Board 63
Building research: the report of the Building Research Board with the report of the Director of Building Research 1958. HMSO, 1959. iv,72pp., illus., plates, tables, diagrs., bibliog. 5*s* 6*d*.
B Summary of research undertaken during year into materials, design and performance of structures, soil mechanics, efficiency of buildings, building operations, tropical housing.

KEATING, D. 64
R.I.B.A. forms of contract. Sweet & Maxwell, 1959. xvi,118pp., illus., tables. 30*s*.
B

Publishers

THE FOLLOWING ABBREVIATIONS ARE USED IN ASLIB BOOK LIST

A & U	Allen & Unwin
B & S	Bailey & Swinfen
C & H	Chapman and Hall
CUP	Cambridge University Press
EUP	English Universities Press
HMSO	Her Majesty's Stationery Office
McG-H	McGraw-Hill
O & B	Oliver and Boyd
OUP	Oxford University Press
R & KP	Routledge & Kegan Paul
ULP	University of London Press

Subject Index

REFERENCE IS TO UDC NUMBER

Aeronautical engineering 629.13
Agriculture 63
Applied sciences 6
Astronautics 629.19
Astronomy 52

Bibliography 01
Biochemistry 577.1
Biology 57
Botany 58
Building 69

Chemical technology 66
Chemistry 54
Commerce. Organization. Communications 65

Electrical engineering 621.3
Engineering 62

General knowledge 001
Geodesy 526
Geology 55

Industrial management 658

Librarianship 02

Manufactures 67/68
Materials testing 620.1
Mechanical engineering 621
Medical sciences 61
Meteorology 551.5
Mineralogical sciences 548

Natural sciences 5

Periodicals 05
Physics 53

Transport engineering 629

Author or Title Index

Association for Applied Solar Energy, 5
Axford, W. A., *comp.* 6

Balabanian, N., 47
Benson, F. A., 37
Berry, L. G., 22
Bockris, J. O'M., *ed.* 18
Bonk, W. J., 7
Brunner, R., *ed.* 28
Buckingham, H., 38
Building Research Board, 63
Butcher, R. W., 30
Byers, H. R., 27

Cahn, R. S., 1
Camies, B. S., 39
Carter, M. D., 7
Case, J., 34
Chilver, A. H., 34
Church, G. A., 35
Clease, A. G. D., 50
Clendinning, J., 17
Collison, R. L., 2

Dekker, A. J., 40
Department of Scientific and Industrial Research, 57
Desoutter, D. M., 52
Dury, G. H., 25
Dutta, A. C., 31

Ebeling, W., 54
Emmons, H. W., *ed.* 20
Everitt, W. L., *ed.* 40

Faraday Society, 23
Finniston, H. M., *ed.* 59
Firsoff, V. A., 15

Gillie, A. C., 41
Gilluly, J., *ed.* 22
Gloag, H. L., 57
Godfrey, D. E. R., 19
Great Britain. Building Research Board, 63
  Department of Scientific and Industrial Research, 57
  Ministry of Agriculture, Fisheries and Food, 55
Grube, W. L., *ed.* 36

Halley, W. C., 12
Hamilton, S., *tr.* 9
Harrison, D., 37
Hayward, R., *ill.* 22
Hearle, J. W. S., *ed.* 61
Hoffmann-Ostenhof O., *ed.* 28
Horecky, P. L., 8
Hutchinson, *Sir* J., 56

Jaswon, M. A., 24
Jensen, J. S., *ed.* 5

Keating, D., 64
Keck, D. D., 32
Keyte, M. J., 57
Kurth, R., 16

Leinwoll, S., 42
Leva, M., 58

Mackenzie, J. D., *ed.* 18
Mark, D., 43
Maryon, H., 60
Mason, B., 22
Meredith, R., *ed.* 61
Mevissen, W., 9
Miller, G. L., 59
Miller, R. N. B., 62
Ministry of Agriculture, Fisheries and Food, 55
Moss, A. J. K., 51
Munz, P. A., 32

Natural history of Rennell Island, British Solomon Islands, 13
Nibakken, O. E., 3
Noltingk, B. E., 4

Ostenhof, O. Hoffmann-, *ed.* 28

Paradise, R. S., 35
Prager, W., 20
Price, E. M., 38
Proceedings of the international congress of biochemistry, 4th, Vienna, 1958, 28

Rassweiler, G. M., *ed.* 36
Reissner, E., *ed.* 20
Richards, P. I., 21

Schure, A., *ed.* 44, 45, 46
Seifert, H. S., *ed.* 53
Seshu, S., 47
Singer, C., 14
Smythe, R. H., 33
Spitzy, K. H., *ed.* 28
Sulfur in proteins, 29

Trefethen, J. M., 26
Troup, G., 48

Viswanathan, C. G., 10

Wagner, T. C. G., 49
Walford, A. J., *ed.* 11
White, J. L., *ed.* 18
Woodford, A. O., *ed.* 22
Worsnop, B. C., *ed.* 48

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VOLUME 25 . NUMBER 2

06 ASSOCIATIONS. INSTITUTIONS. MUSEUMS

65

ENCYCLOPEDIA of American associations: a guide to the national organizations of the United States. 2nd ed. Detroit, Gale Research Institute, 1959. ix,716pp. $20.

D

SPRAT, T. 66

History of The Royal Society, ed. with critical apparatus by J. I. Cope and H. W. Jones. St Louis (Miss.), Washington University Studies; London, R & KP, 1959. xxxii,[17],439,78pp., tables, diagrs. $7.50; 50*s*.

A–B Facsimile of 1667 edition, written as a defence of the Society and experimental science against contemporary criticism.

3 SOCIAL SCIENCES

31 STATISTICS

ILERSIC, A. R. 67

Statistics. 12th ed. H. F. L., 1959. xiv,467pp., tables, diagrs. 30*s*.

B Previous editions published under title *Statistics and their application to commerce.*

33 ECONOMICS

ARROW, K. J. *and* HOFFENBERG, M. 68

A time series analysis of interindustry demands. Amsterdam, North-Holland, 1959. [11],292pp., tables, bibliog. 55*s approx. Contributions to economic analysis, ed. by R. Strotz and others, no. 17.*

C

ROYAL INSTITUTE OF PUBLIC ADMINISTRATION 69

Budgeting in public authorities, by a study group of the Royal Institute of Public Administration; chairman R. S. Edwards, research officer H. S. Hines. A & U, 1959. 299pp., tables, bibliog. 28*s*.

B First major study of budgeting procedures operated by central government, local government, nationalized industries, and hospital service in Great Britain.

SMELSER, N. J. 70

Social change in the industrial revolution: an application of theory to the Lancashire cotton industry 1770–1840. R & KP, 1959. xii,440pp., tables, diagrs., bibliog. 40*s*. *International library of sociology and social reconstruction, ed. by W. H. J. Sprott.*

B

STONE, R. *and* CROFT-MURRAY, G. 71

Social accounting and economic models. Bowes & Bowes, 1959. 88pp., tables, bibliog. 9*s* 6*d*.

B Intended as more advanced sequel to Meade and Stone's *National income and expenditure.*

37 EDUCATION

DIXON, W. 72

Education in Denmark. Harrap, 1959. 233,vi.pp., plates, tables, diagrs. 25*s*.

B First comprehensive survey in English of historical development and present system of Danish education.

FRASER, E. 73
Home environment and the school. ULP, 1959. viii,85pp., tables. 10*s* 6*d*. *Publications of The Scottish Council for Research in Education.*

C Account of a detailed investigation into the correlation between performance in school and home background. Should be read by those interested in selection at 11+.

GREAT BRITAIN. Ministry of Education 74
Primary education: suggestions for the consideration of teachers and others concerned with the work of primary schools. HMSO, 1959. xv,334pp. 10*s*.

B Replaces the *Handbook of suggestions for teachers*, last revised 1937. Based on selection of best ideas and practices noticed by H.M. Inspectors in course of school visits and discussions with teachers.

JUDGES, A. V., *ed.* 75
The function of teaching: seven approaches to purpose, tradition, and environment. Faber, 1959. 172pp. 15*s*.

B Series of lectures given at King's College, University of London.

QUIRK, R. *and* SMITH, A. H. 76
The teaching of English, ed. and intro. by R. Quirk and A. H. Smith. Secker & Warburg, 1959. 192pp., diagrs., bibliog. 12*s* 6*d*. *Studies in communication, no. 3.*

B Attempt to apply the results of modern communication theory to English teaching.

38 TRADE and COMMUNICATIONS

GRIPAIOS, H. 77
Tramp shipping. Nelson, 1959. xi,156pp., plates, tables, diagrs. 25*s*. *Nelson's nautical series, ed. by A. C. Hardy.*

A Analysis of economics of tramp-ship design and operation.

HICKS, J. R. 78
Essays in world economics. Oxford, Clarendon P., 1959. xviii,274pp. 21*s*.

B

4 PHILOLOGY

413 Dictionaries

BÉNÉ, G. J. *and others, comps.* 79
Nuclear physics and atomic energy: terms of nuclear physics and nuclear technology in English, French, German, Russian, by G. J. Béné, R. Beeler, and M. Golub. Amsterdam, London, [etc.], Elsevier, 1960. viii,213pp. 16*fl*; 30*s*. *Glossaria interpretum, ed. by J. Herbert.*

D Glossary of 2117 technical terms, fully indexed and cross-indexed. Published under the auspices of the universities of Geneva, Mainz, and Georgetown.

ELSEVIER PUBLISHING CO. 80
Rubber dictionary in ten languages: English/American, French, Spanish, Italian, Portuguese, German, Dutch, Swedish, Indonesian, Japanese, comp. and arranged on an English alphabetical base by Rubber Stichting (Rubber Foundation). Amsterdam, Elsevier; London, Van Nostrand, 1959. [8],1537pp. 165*fl*; 15*gns*.

D Some 8000 terms relating to rubber. Basic word list (numbered) is in English with corresponding terms in nine languages across double page. Alphabetical lists for each language with numerical reference to basic English table.

5 NATURAL SCIENCES

51 MATHEMATICS

ABHYANKAR, S. 81
Ramification theoretic methods in algebraic geometry. Princeton (N.J.), Princeton U.P.; [London, OUP], 1959. ix,97pp., bibliog. $2.75; 22*s*. *Annals of mathematical studies, no: 43.*

C Concise, unified treatment of subject. Covers general ramification theory, valuation theory, local rings and local domains, varieties, and transformations.

DENNIS, J. B. 82
Mathematical programming and electrical networks. Cambridge, Massachusetts Institute of Technology; N.Y., Wiley; London, C & H, 1959. vi,186pp., tables, bibliog. $4.50; 28*s*. *Research monographs.*

B New approach to mathematical programming, based on an analogy with electrical networks. Typewriter script.

KAC, M. 83
Probability and related topics in physical sciences, with special lectures by G. E. Uhlenbeck, A. R. Hibbs, B. van der Pol. Interscience, 1959. xiii,266pp., tables, diagrs., bibliog. 43*s*. *Lectures in applied mathematics, vol. 1.*

C

MIKUSINSKI, J. 84
Operational calculus. 5th (English) ed. [tr. from 2nd Polish ed.]. London, [etc.], Los Angeles, Pergamon P.; Warsaw, Panstwowe Wydawnictwo Naukowe, 1959. 495pp., diagrs., bibliog. 100*s*; $15. *International series of monographs on pure and applied mathematics, ed. by I. N. Sneddon and S. Ulam, vol. 8.*

C Translation of pioneer work. 2nd Polish ed. originally published as vol. 30 of *Monografie matematycze*, 1957.

MORAN, P. A. P. 85
The theory of storage. London, Methuen; N.Y., Wiley, 1959. 111pp., tables, diagrs., bibliog. 13*s* 6*d*. *Monographs on applied probability and statistics, ed. by M. S. Bartlett.*

C By a pioneer worker on the problem of a store with either a random output or a random input. Summary of work in progress on this important application of probability theory. Chapters on inventories, dams, and statistical methods of computation.

SEMPLE, J. G. *and* KNEEBONE, G. T. 86
Algebraic curves. Oxford, Clarendon P., 1959. xiii,361pp., tables, bibliog. 45*s*.

C Theory of algebraic curves based firmly on algebraic methods. Good introduction to the work of van der Waerden, Zariski, and Walker. For Honours or post-graduate students.

53 PHYSICS

AHARONI, J. 87
The special theory of relativity. Oxford, Clarendon P., 1959. viii,285pp., tables, diagrs., bibliog. 45*s*.

B Textbook with particular emphasis on the applications of the theory to quantum physics of high-energy particles, including the theory of spinors.

FOCK, V. 88
The theory of space time and gravitation, tr. from the Russian by N. Kemner. London, [etc.], Los Angeles, Pergamon P., 1959. xviii,411pp., bibliog. 100*s*; $15.

C Important work on special and general relativity. The author reformulates the theory of general relativity so as to take proper account of privileged co-ordinate systems.

INTERNATIONAL UNION OF THEORETICAL AND APPLIED MECHANICS 89
Non-homogeneity in elasticity and plasticity: symposium, Warsaw. September 2–9, 1958, ed. by W. Olszak. London, [etc.], Los Angeles, Pergamon P., 1959. xxiv,530pp., illus., tables, diagrs., bibliogs. 100*s*; $15.

C Original papers on wide range of subjects in which non-homogeneity is the distinctive feature of the material; mostly in English, with two papers in German and a few in French.

SHORT, A. E. 90
Dynamics. ULP, 1959. 384pp., tables, diagrs. 30*s*.

B General treatise on dynamics treated progressively from velocity and acceleration to the general dynamics of a rigid body.

SOMERVILLE, J. M. 91
The electric arc. London, Methuen; N.Y., Wiley, 1959. ix,150pp., tables, diagrs., bibliog. 12*s* 6*d*. *Monographs on physical subjects, ed. by B. L. Worsnop.*

B Summary for non-specialists of what is known of the physical processes occuring in the gas channels and at channel-electrode junctions during electric arc discharges at atmospheric pressures.

WILSON, H. A. 92
Modern physics. 4th ed. Blackie, 1959. xv,473pp., plates, tables, diagrs., bibliogs. 40*s*. *Student's physics.*

B Concise account of present ideas in classical and nuclear physics. First edition 1928; enlarged by chapters on semi-conductors, low-temperature physics, and elementary particles, and sections on parity, magnetic cooling, and spin.

539.1 Nuclear physics

FROST, B. R. T. *and* WALDRON, M. B. 93
Nuclear reactor materials. Temple P., 1959. vii,79pp., illus., tables, diagrs., bibliog. 12*s* 6*d*. *Nuclear engineering monographs, ed. by W. K. Mansfield.*

B Covers structural materials, fuels and fuel elements, moderators, and coolants. For reactor engineers and students of reactor physics and engineering.

LEONTOVICH, M. A., *ed.* 94
Plasma physics and the problem of controlled thermonuclear reactions; vol. III. tr. from the Russian by J. B. Sykes, tr. ed. J. Turkevich. London, [etc.], Los Angeles, Pergamon P., 1959. vi,422pp., tables, diagrs., bibliogs. 160*s*; $24.

C Papers by workers of the Institute of Atomic Energy of the USSR Academy of Sciences, dealing with work carried out 1951–8. None of the papers are of a review nature, but they deal with both theoretical and experimental topics.

MODELSKI, G. A. 95
Atomic energy in the communist bloc. Melbourne, Melbourne U.P. on behalf of the Australian National University; London, CUP, 1959. [9],226pp., tables. 30*s*. *Australian National University. Social science monographs, no. 15.*

A Survey of developments in nuclear research and peaceful applications of atomic energy in USSR, China, and other communist countries.

54 CHEMISTRY

BUCHAN, S. 96
Rubber to metal bonding. 2nd ed. rev. Crosby Lockwood, 1959. xiv,300pp., plates, tables, diagrs., bibliog. 42*s*.

B Important new chapters added on chemical examination of rubber-to-brass bond and testing bonded units. Corrections to other chapters and extra illustrations.

ELLIOTT, A. *and* DICKSON, J. H. 97
Laboratory instruments: their design and application. 2nd ed. rev. C & H, 1959. xvi,514pp., illus., tables, diagrs., bibliog. 55*s*.

B Thorough revision of work first published in 1952, with a number of useful new sections.

FRANCIS, G. E. *and others* 98
Isotopic tracers: a theoretical and practical manual for biological students and research workers, by G. E. Francis, W. Mulligan, and A. Wormall, with a foreword by G. Hevesy. 2nd ed. University of London, Athlone P., 1959. xxii,524pp., illus., tables, diagrs., bibliogs. 52*s* 6*d*.

B Presents theoretical principles and practical applications of methodology of stable and radioactive isotopes. Much enlarged and revised edition of work first published 1954. References up to 1957.

INTERNATIONAL COMMITTEE OF ELECTROCHEMICAL THERMODYNAMICS AND KINETICS 99
Proceedings of the ninth meeting, with contributions in English, French, and German. Butterworths Scientific, 1959. x,489pp., plates, tables, diagrs., bibliogs. 120*s*.

C Papers presented at the Paris meeting, 1957, on thermodynamical data and potential pH diagrams, experimental methods in electrochemistry, batteries and accumulators, electrochemical kinetics, and electrochemistry of semiconductors.

100
INTERNATIONAL conference on co-ordination chemistry, London, April 6th–11th, 1959, organized by The Chemical Society, under the sponsorship of the International Union of Pure and Applied Chemistry: lectures delivered and abstracts of papers submitted. Chemical Society, 1959. iii,204pp., tables, diagrs., bibliogs. 42*s*; $6. *Special publication no.* 13.

B–C Lectures by distinguished authorities dealing mainly with organometallic compounds, their structures, reactions, and applications.

MAKAROV, E. S. 101
Crystal chemistry of simple compounds of uranium, thorium, plutonium, and neptunium, tr. from the Russian by E. B. Uvarov. N.Y., Consultants Bureau; London, C & H, 1959. iii,145pp., tables, diagrs., bibliog. $5.25; 42*s*.

B–C Final chapter considers difficult problem of position of these elements in the periodic table. Crystal chemistry of other actinide elements and their simpler compounds is also dealt with. Literature up to June 1957 is considered.

MNDZHOIAN, A. L., *ed.* 102
Syntheses of heterocyclic compounds; vols. 1 and 2; tr. from the Russian by A. E. Stubbs. N.Y., Consultants Bureau; London, C & H, 1959. [5],71,84pp., diagrs., bibliogs. $6; 48*s*.

B Translation of first two volumes of new Russian series modelled closely on *Organic syntheses*. Contains 60 preparations of selected furane derivatives. Two volumes in one.

WALDRON, J. D., *ed.* 103
Advances in mass spectrometry: proceedings of a joint conference organized by The Hydrocarbon Research Group, Institute of Petroleum, and A.S.T.M. Committee E.14, and held in the University of London, 24th–26th September, 1958. London, [etc.], Los Angeles, Pergamon P., 1959. xv,704pp., illus., tables, diagrs., bibliog. 120*s*; $18.

C Some 40 papers giving most up-to-date information on research, development, and applications. Bibliography containing about 2000 references, covering the years 1938–57.

57 BIOLOGY

BEAUMONT, A. 104
Diseases of farm crops. Collingridge, 1959. 128pp., illus., plates. 25*s*.
B Description of symptoms, with good photographs to facilitate identification, and discussion of prevention and control.

ONCLEY, J. L. *and others, eds.* 105
Biophysical science: a study program, ed. by J. L. Oncley, F. O. Schmitt, R. C. Williams, M. D. Rosenberg, and R. H. Bolt for the Biophysics and Biophysical Chemical Study Section of the National Institute of Health, Public Health Service, United States Department of Health, Education, and Welfare. N.Y., Wiley; [London, C & H], 1959. viii,568,A114,S127pp., illus., tables, diagrs., bibliogs. $6.50; 52*s*.
B Sixty-one articles cover the full range of biophysics and related topics and deal mainly with recent work and developments. Suitable for readers with general scientific training.

PENROSE, L. S. 106
Outline of human genetics. Heinemann, 1959. xii,146pp., plates, tables, diagrs., bibliog. 12*s* 6*d*. *Contemporary science books.*
A Evidence for inheritance as a factor in such traits as blood groups, colour blindness, twins, mongolism, fertility, body size, and intelligence. Reviews of related subjects such as effect of radiation and modern eugenics.

WARD, H. B. *and* WHIPPLE, G. C. 107
Fresh-water biology. 2nd ed., ed. by W. T. Edmondson. N.Y., Wiley; London, C & H, 1959. xxi,1248pp., illus., tables, diagrs., bibliogs. $34.50; 276*s*.
B–C Thoroughly revised edition of standard textbook for identification of fauna and flora of North American inland waters. Previous edition 1918.

59 ZOOLOGY

BRITISH MUSEUM (NATURAL HISTORY), *London* 108
A systematic monograph of the dermaptera of the world; based on material in the British Museum (Natural History); part 2, Pygidicranidae excluding diplatyinae, by W. D. Hincks. British Museum (Natural History), 1959. 218pp., illus., bibliog. 70*s*.
B Twenty-six new species are among the 141 described.

DOWDESWELL, W. H. 109
Animal ecology. 2nd ed. Methuen, 1959. xv,209pp., illus., plates, tables, diagrs., bibliog. 16*s*.
B–C Previous edition 1952.

FRASER, F. C. 110
Mecoptera, megaloptera, and neuroptera. Royal Entomological Sociey of London, 1959. [2],40pp., illus., bibliog. 10*s*. *Handbooks for the identification of British insects; vol. 1, parts 12 and 13.*
B Keys for identification, glossary of terms, and list of references.

PERKINS, J. F. 111
Hymenoptera: ichneumonoidea, ichneumonidae, key to subfamilies and ichneumoninae; section (a). Royal Entomological Society of London, 1959. [2], 116pp., illus., bibliog. 25*s*. *Handbooks for the identification of British insects; vol. 7, part 2.*
B

6 APPLIED SCIENCES

62 ENGINEERING

621 Mechanical engineering

ARMSTRONG, L. V. *and* HARTMAN, J. B. 112
The diesel engine: its theory, basic design, and economics. N.Y., [London], Macmillan (N.Y.), 1959. xix,360pp., illus., tables, diagrs., bibliogs. $6.50; 45*s* 6*d*.

C Textbook on fundamentals of compression-ignition engines, including up-to-date treatment of dual-fuel engines. Does not cover variants such as exhaust-pulse charging.

HUNT, K. H. 113
Mechanisms and motion. EUP, 1959. xiv,114pp., tables, diagrs. 21*s*. *General engineering series.*

C New approach to principles of kinematics in mechanical engineering and other courses to diploma and degree level.

MOLLOY, E., *ed.* 114
Diesel engine manual, prepared by a staff of technical experts under the direction of E. Molloy. 4th ed. Newnes, 1959. 240pp., illus., tables, diagrs. 21*s*.

B Practical guide to installation and maintenance of automobile, land, and small marine diesels.

TAYLOR, H. F. *and* WULFF, J. 115
Foundry engineering, ill. by G. E. Schmidt, jr. N.Y., Wiley; London, C & H, 1959. vii,407pp., illus., tables, diagrs., bibliogs. $9.75; 78*s*.

B Students' introductory textbook devoted to practical aspects. Illustrated with good line diagrams. All authors are at Massachusetts Institute of Technology.

621.039 Nuclear engineering

116
PEACEFUL uses of atomic energy: proceedings of the 2nd United Nations international conference held in Geneva, September 1–13, 1958. Geneva, United Nations. Illus. 6v.

C vol. 2, survey of raw material resources. 1958. 843pp. 132*s*.
vol. 5, properties of reactor materials. 1958. 627pp. 100*s*.
vol. 10, research reactors. 1958. 548pp. 132*s*.
vol. 11, reactor safety and control. 1959. 550pp. 111*s*.
vol. 18, waste treatment and environmental aspects of atomic energy. 1958. 624pp. 118*s*.
vol. 19, the uses of isotopes: industrial use. 1959. 366pp. 89*s*.
Distributed in UK by HMSO, in USA and Canada by Columbia U.P. (International Documents Service), N.Y.

628 Public health engineering

GOODIN, F. G. *and* DOWNING, J. 117
Domestic sanitation: a book on the modern principles and practice of domestic sanitation for those engaged in architecture, building, estate management, and surveying; foreword by Sir A. E. Richardson. Estates Gazette, 1959. xxi,451pp., plates, tables, diagrs. 50*s*.

B

66 CHEMICAL TECHNOLOGY

CARTMELL, E. 118
Chemistry for engineers: an introductory course. Butterworths Scientific, 1959. vii,172pp., plate, table, diagrs., bibliogs. 25*s*.

B Course of applied chemistry with emphasis on power production and chemistry of materials. For engineering students starting a degree or Higher National Certificate course.

POUCHER, W. A. 119
Perfumes, cosmetics, and soaps: with special reference to synthetics; vol. 2, being a treatise on the production, manufacture, and application of perfumes of all types. 7th ed. C & H, 1959. xii,453pp., illus., plates, tables. 75*s*.

C Vol. 2 of this 3-vol. standard reference work on perfumery and cosmetics has now been fully revised and covers all aspects of perfume technology.

67/68 MANUFACTURES

BUTLER, J. 120
Compression and transfer moulding of plastics. London, Iliffe; N.Y., Interscience for The Plastics Institute, 1959. x,230pp., illus., tables, diagrs., bibliogs. 35*s*.

B Authoritative book in The Plastics Institute monograph series, for mould designers and students. Well illustrated with working drawings and photographs.

HAIM, G. 121
Manual for plastic welding; vol. III, polyvinyl chloride. Crosby Lockwood, 1959. xvi,324,[11]pp., illus., plates, tables, diagrs., bibliogs. 50*s*. *Welding of plastics series.*

B Complete practical manual on PVC, rigid and plasticized, with emphasis on the structural and large-scale chemical applications fabricated by welding.

681 Precision mechanisms

122
BUSINESS computer symposium, Olympia, London, 1st–3rd December 1958. Pitman, 1959. ix,846pp., diagrs. 75*s*.

B Twenty-three papers on various aspects of automatic data-processing. Useful work of reference for accountants, production engineers, management consultants, and computer manufacturers.

WARFIELD, J. N. 123
Introduction to electronic analog computers. Prentice-Hall, 1959. ix,175pp., diagrs. 30*s*. *Electrical engineering series, ed. by W. L. Everitt.*

C Based on notes for lectures to graduate students in engineering at Purdue and Illinois Universities. A good background in network analysis is essential to the reader.

7 FINE ARTS

72 ARCHITECTURE

DANNATT, T. 124
Modern architecture in Britain; intro. by J. Summerson. Batsford, 1959. 216pp., illus., diagrs., bibliog. 63*s*.

B About ninety buildings of all types, erected since the war, described and illustrated with photographs and plans.

'E. & O.E.', *pseud.* 125
Planning: the architect's handbook, by S. R. Pierce, P. Cutbush, A. Williams. 8th ed. Iliffe, 1959. 538pp., tables, diagrs. 63*s*.

B This edition includes requirements common to all buildings as well as principles of planning the various types of building.

Publishers

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A & U	Allen & Unwin
B & S	Bailey & Swinfen
C & H	Chapman and Hall
CUP	Cambridge University Press
EUP	English Universities Press
HMSO	Her Majesty's Stationery Office
McG-H	McGraw-Hill
O & B	Oliver and Boyd
OUP	Oxford University Press
R & KP	Routledge & Kegan Paul
ULP	University of London Press

Subject Index

REFERENCE IS TO UDC NUMBER

Applied sciences 6
Architecture 72
Associations. Institutions. Museums 06

Biology 57

Chemical technology 66
Chemistry 54

Dictionaries 413

Economics 33

Education 37
Engineering 62

Fine Arts 7

Manufactures 67/68
Mathematics 51
Mechanical engineering 621

Natural sciences 5
Nuclear engineering 621.039
Nuclear physics 539.1

Philology 4
Physics 53
Precision mechanisms 681
Public health engineering 628

Social sciences 3
Statistics 31

Trade and communications 38

Zoology 59

Author or Title Index

Abhyankar, S., 81
Aharoni, J., 87
American Society for Testing Materials, 103
Armstrong, L. V., 112
Arrow, K. J., 68

Bartlett, M. S., *ed.* 85
Beaumont, A., 104
Beeler, R., *comp.* 79
Béné, G. J., *comp.* 79
Bolt, R. H., *ed.* 105
British Museum (Natural History), 108
Buchan, S., 96
Business computer symposium, 122
Butler, J., 120

Cartmell, E., 118
Chemical Society, 100
Cope, J. I., *ed.* 66
Croft-Murray, G., 71
Cutbush, P., 125

Dannatt, T., 124
Dennis, J. B., 82
Dickson, J. H., 97
Dixon, W., 72
Dowdeswell, W. H., 109
Downing, J., 117

'E. & O.E.', *pseud.* 125
Edmondson, W. T., *ed.* 107
Elliott, A., 97
Elsevier Publishing Co., 80
Encyclopedia of American associations, 65
Everitt, W. L., *ed.* 123

Fock, V., 88
Francis, G. E., 98
Fraser, E., 73
Fraser, F. C., 110
Frost, B. R. T., 93

Golub, M., *comp.* 79
Goodin, F. G., 117
Great Britain. Ministry of Education, 74
Gripaios, H., 77

Haim, G., 121
Hardy, A. C., *ed.* 77
Hartman, J. B., 112
Herbert, J., *ed.* 79
Hicks, J. R., 78
Hincks, W. D., 108
Hoffenberg, M., 68
Hunt, K. H., 113

Ilersic, A. R., 67
Institute of Petroleum, 103
International Committee of Electrochemical Thermodynamics and Kinetics, 99
International conference on co-ordination chemistry, 100
International Union of Pure and Applied Chemistry, 100
International Union of Theoretical and Applied Mechanics, 89

Jones, H. W., *ed.* 66
Judges, A. V., *ed.* 75

Kac, M., 83
Kemner, N., *tr.* 88
Kneebone, G. T., 86

Leontovich, M. A., *ed.* 94

Makarov, E. S., 101
Mansfield, W. K., *ed.* 93
Mikusinski, J., 84
Ministry of Education, 74
Mndzhoian, A. L., *ed.* 102
Modelski, G. A., 95
Molloy, E., *ed.* 114
Moran, P. A. P., 85
Mulligan, W., 98
Murray, G. Croft-, 71

Olszak, W., *ed.* 89
Oncley, J. L., *ed.* 105

Peaceful uses of atomic energy, 116
Penrose, L. S., 106
Perkins, J. F., 111
Pierce, S. R., 125
Poucher, W. A., 119

Quirk, R., 76

Rosenberg, M. D., *ed.* 105
Royal Institute of Public Administration, 69
Rubber Stichting, *comp.* 80

Schmidt, jr., G. E., *ill.* 115
Schmitt, F. O., *ed.* 105
Semple, J. G., 86
Short, A. E., 90
Smelser, N. J., 70
Smith, A. H., 76
Sneddon, I. N., *ed.* 84
Somerville, J. M., 91
Sprat, T., 66
Sprott, W. H. J., *ed.* 70
Stone, R., 71
Strotz, R., *ed.* 68
Stubbs, A. E., *tr.* 102
Sykes, J. B., *tr.* 94

Taylor, H. F., 115

Ulam, S., *ed.* 84
United Nations, 116
Uvarov, E. B., *tr.* 101

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007 Human work

BEER, S. 126

Cybernetics and management. EUP, 1959. xviii,214pp., tables, diagrs., bibliogs. 25*s*. *Management science series, gen. ed. K. Pennycuick.*

A–B General exposition of cybernetics and its relation to management. Based on series of lectures delivered to the Royal Swedish Academy for Engineering Sciences, and intended for the imaginative manager.

3 SOCIAL SCIENCES

37 EDUCATION

EDMUNDSON, J. 127

P.E. teacher's handbook for secondary schools. Evans Bros., 1959. 208pp., illus., tables, diagrs. 10*s* 6*d*.

E For the non-specialist teacher and the young teacher who lacks experience of drawing up a physical education scheme.

SCIENCE TEACHERS' JOINT SUB-COMMITTEE 128

Science in the primary school. J. Murray, [1959]. 46pp., diagr., bibliog. 3*s*.

A

WARD, W. E. 129

Educating young nations, with a foreword by H. L. Elvin. A & U, 1959. 4–195pp., tables, diagrs. 15*s*.

A Discussion of problems in education of peoples of colonies and other young nations.

4 PHILOLOGY

CONDOYANNIS, G. E. 130

Scientific Russian [illegible] description of the structural elements of scientific and technical Rus[illegible]Y., Wiley; London, C & H, [1959]. xii,225pp., tables, diagrs. $3.50; 20*s*.

D Intended for beginners with no previous knowledge of Russian and designed to give sufficient reading knowledge of the language to cope with technical articles and books.

GAYNOR, F. 131

Concise dictionary of science: physics—mathematics—nucleonics—astronomy—chemistry. Owen, 1959. [5],566pp., table. 50*s*.

D 5000–6000 technical terms and concepts in common use. Definitions are brief but adequate; American spelling is used.

5 NATURAL SCIENCES

NEEDHAM, J. 132

Science and civilization in China, by J. Needham with the research assistance of Wang Ling; vol. 3, mathematics and the sciences of the heavens and the earth. Cambridge, CUP, 1959. xlvii,877pp., illus., plates, tables, diagrs., bibliog. 150*s*.

A

53 PHYSICS

ATKIN, R. H. 133

Classical dynamics. Heinemann, 1959. ix,273pp., diagrs. 30*s*.

B

FEATHER, N. 134
An introduction to the physics of mass, length, and time. Edinburgh, Edinburgh U.P., 1959. ix,358pp., diagrs. 18*s*. *Edinburgh University publications, science and mathematics texts, no. 1.*

B Attractive approach to fundamental measurements in physics and their associated systems of measurement, tracing their emergence from the earliest times. Calculus in any formal context is excluded.

HARTSHORNE, N. H. *and* STUART, A. 135
Crystals and the polarizing microscope: a handbook for chemists and others. 3rd ed. Edward Arnold, 1960. xv,557pp., illus., tables, diagrs., bibliog. 80*s*.

B New sections on available types of polarizing microscopes, numerical aperture, theory of resolution, polarizing devices, condensers, and hot stages; new chapter on rotating apparatus and universal stages. For all concerned with transparent crystals.

HINZE, J. O. 136
Turbulence: an introduction to its mechanism and theory. N.Y., [etc.], London, McG-H, 1959. ix,586pp., tables, diagrs., bibliog. $15; 116*s* 6*d*. *McGraw-Hill series in mechanical engineering, ed. by R. M. Drake and S. J. Kline.*

C

KINGERY, W. D. 137
Property measurements at high temperatures: factors affecting and methods of measuring material properties at temperatures above 1400°C. (2550°F.). N.Y., Wiley; London, C & H, [1959]. xii,416pp., illus., tables, diagrs., bibliog. $16.50; 132*s*.

C

KUETHE, A. M. *and* SCHETZER, J. D. 138
Foundations of aerodynamics. 2nd ed. N.Y., Wiley; London, C & H, 1959. xiv,446pp., illus., tables, diagrs. $11.75; 94*s*.

B Revised and expanded edition of 1950 text covering essentials of perfect, viscous, and compressible fluid flow. For advanced undergraduate and first-year graduate courses.

POWELL, C. F. *and others* 139
The study of elementary particles by the photographic method: an account of the principal techniques and discoveries illustrated by an atlas of photomicrographs, by C. F. Powell, P. H. Fowler, and D. H. Perkins. Pergamon P., 1959. xvi,669pp., illus., diagrs., bibliog. 250*s*.

C

SEARS, F. W. *and* ZEMANSKY, M. W. 140
College physics. 3rd ed. Reading (Mass.), London, Addison-Wesley, [1960]. xxiii,1024pp., illus., plates, tables, diagrs. $6.75; 51*s*.

B Thorough revision incorporating much new material on mechanics, heat, sound, electricity, magnetism, light, and atomic physics. No mathematics beyond ordinary algebra and elements of trigonometry.

SMITH, C. J. 141
Optics. Edward Arnold, 1960. vii,736pp., illus., diagrs. 63*s*. *A degree physics, part* III.

B–C Covers syllabus of geometrical and physical optics laid down for the General Degree examination of the University of London and comparable examinations.

SWAINGER, K. 142
Analysis of deformation; vol. 4, waves and vibrations. C & H, 1959. xxvii, 370pp., illus., tables, diagrs., bibliog. 75*s*.

B–C Deals with vibrations and waves in elastic and plastic solids, viscous and non-viscous fluids, using the method of vector analysis.

54 CHEMISTRY

548 Mineralogical sciences

HURLBUT, C. S., *ed.* 143
Dana's manual of mineralogy. 17th ed. rev. N.Y., Wiley; London, C & H, 1959. xi,609pp., illus., tables, diagrs., bibliogs. $11.50; 92*s*.
B Includes considerable additions to section on crystallography and a more up-to-date treatment of chemistry of minerals.

SINKANKAS, J. 144
Gemstones of North America, ill. by the author. Princeton (N.J.), [etc.], London, Van Nostrand, [1959]. xv,675pp., illus., plates, tables, diagrs., bibliog. $15; 106*s* 6*d*.
B

58 BOTANY

ROSS-CRAIG, S. 145
Drawings of British plants, being illustrations of the species of flowering plants growing naturally in the British Isles; part 13, umbelliferae (2), araliaceae, cornaceae. Bell, 1959. [7]pp., plates. 9*s* 6*d*.
C

STEWARD, F. C., *ed.* 146
Plant physiology: a treatise; vol. 2, plants in relation to water and solutes. N.Y., London, Academic P., 1959. xvii,758pp., illus., tables, diagrs., bibliog. $22; 157*s*.
C First volume published in proposed series of six. Provides specialist with enough detail to bridge gap between existing competent textbooks and the encyclopaedic work being edited by Ruhland.

6 APPLIED SCIENCES

61 MEDICAL SCIENCES

INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY 147
Applied Chemistry Section. Toxicology and Industrial Hygiene Division.
Methods for the determination of toxic substances in air, prepared for publication by J. C. Gage, N. Strafford, and T. Truhaut. Butterworths Scientific, 1959. Various paging, tables, diagrs., bibliogs. 30*s*.
B Twenty-one substances are dealt with here and others will be covered in supplements. Loose-leaf binding.

STABLEFORTH, A. W. *and* GALLOWAY, I. A., *eds.* 148
Infectious diseases in animals: diseases due to bacteria; vols. 1 and 2. London, Butterworths Scientific; [N.Y., Academic P.], 1959. x,396;x,397–810pp., illus., tables, diagrs., bibliogs. 160*s*; $33 per set.
C Each disease dealt with by an authority on the subject. For veterinary students and medical research and public health workers. Essentially a work on bacteriology rather than a clinical handbook.

WILSON, E. D. *and others* 149
Principles of nutrition, by E. D. Wilson, K. H. Fisher, and M. E. Fuqua. N.Y., Wiley; London, C & H, 1959. xii,483pp., illus., tables, diagrs., bibliogs. $6; 48*s*.
B Full introduction to the science of nutrition, characterized by successful attempt at clear pictorial and verbal presentation.

62 ENGINEERING

620.1 Materials testing

MORGAN, J. H. 150

Cathodic protection: its theory and practice in the prevention of corrosion. Leonard Hill, 1959. xvi,325pp., plates, tables, diagrs., bibliogs. 57*s* 6*d*.

B First English textbook on the subject, explaining theory and techniques in a clear manner. Contains all the information likely to be of use to practising engineers.

TIMOSHENKO, S. *and* WOINOWSKY-KRIEGER, S. 151

Theory of plates and shells. 2nd ed. N.Y., [etc.], London, McG-H, 1959. xiv, 580pp., tables, diagrs. $15; 116*s* 6*d*. *Engineering societies monographs.*

B Standard book on the subject. Previous edition by S. Timoshenko, 1940.

621 Mechanical engineering

SNEEDEN, J-B. O. 152

Applied heat for engineers. 3rd ed. Blackie, 1959. xiv,380pp., illus., tables, diagrs. 25*s*.

B Account of physical principles of heat and their applications to heat engines. New chapter on refrigeration.

621.3 Electrical engineering

153

BASIC electronics: a course of training developed for the United States Navy by the New York firm of management consultants and graphiological engineers Van Valkenburgh, Nooger & Neville, Inc., adapted to British and Commonwealth usage by a special electronics training investigation team of the Royal Electrical & Mechanical Engineers; in six parts. London, Technical P., 1959. [100pp. approx. each part.], illus., diagrs. 12*s* 6*d* per part, 66*s* per set.

B Entirely new approach to teaching of electronics, more than half the work being devoted to illustrations. American version published by Brolet Press, N.Y.

CULLWICK, E. G. 154

Electromagnetism and relativity: with particular reference to moving media and electromagnetic induction. Longmans, 1959. xxii,291pp., diagrs. 63*s*.

C First published 1957, this edition revises the clock paradox in relativity and clarifies some details in theory of the equivalence of magnetic energy and kinetic energy of the conduction electrons in a non-radiating current circuit.

HAWLEY, W. G. 155

Impulse-voltage testing. C & H, 1959. xvi,183pp., illus., plates, tables, diagrs., bibliog. 32*s*. *Monographs on electrical engineering, ed. by H. P. Young, vol. 15.*

B Deals comprehensively with the practice and gives the basic theory in terms of the Heaviside operational calculus.

LEWIS, I. A. D. *and* WELLS, F. H. 156

Millimicrosecond pulse techniques. 2nd ed. London, N.Y., [etc.], Pergamon P., 1959. xviii,417pp., plates, tables, diagrs., bibliog. 50*s*; $8.50.

C Comprehensive collation of material from known fields of electronic engineering, including special developments in time range 10^{-6} to 10^{-10} secs. Covers theory and design of electronic circuits and devices within this range.

MIDDLETON, H. A. 157

Master receiving-picture tube substitution guide book. N.Y., Rider; London, C & H, 1959. vii,343pp., tables, diagrs. $7.45; 60*s*.

D Handbook of substitution types for radio valves (tubes) and cathode-ray tubes; fundamentally American but including American to European and vice versa. Compilation and revision of four previous publications.

PEEL, H. I. F. 158
Elements of radio engineering. 2nd ed. rev. Cleaver-Hume, 1960. vii,257pp., diagrs. 13*s* 6*d*.
B Covers first two years of City and Guilds course in telecommunications and corresponding parts of I.E.E. and Brit.I.R.E. syllabuses. New chapter on transistors, and complete revision of examination questions.

RIDER, J. F. *and* USLAN, D. 159
Encyclopedia on cathode-ray oscilloscopes and their uses. 2nd ed. N.Y., Rider; London, C & H, 1959. [1365]pp., illus., tables, diagrs., bibliogs. $21.95; 176*s*.
B Textbook covering all aspects of theory, design, operation, maintenance, and use of cathode-ray oscilloscopes; for electrical engineers, research workers, and students. Various paging.

RODGERS, T. M. 160
Handbook of practical electroplating. N.Y., [London], Macmillan (N.Y.), 1959. xvii,333pp., illus., tables, diagrs. $8.50; 59*s* 6*d*.
D Covers wide range of metal finishing activities in a practical manner. Topics arranged in alphabetical order.

SINGER, J. R. 161
Masers. N.Y., Wiley; London, C & H, 1959. xi,147pp., illus., tables, diagrs., bibliog. $6.50; 52*s*.
B Covers whole field of quantum mechanical amplifiers. Suitable for second-year students in physics and telecommunication engineering.

624 Civil engineering

RYAN, P. W. S. 162
Engineering administration. Angus & Robertson, 1959. viii,78pp., tables, diagrs., bibliogs. 21*s*.
B Describes office work of engineer responsible for site operations on large constructions; different types of contract in common use, elements of costing and financial control, and organizational patterns for site personnel are covered.

STUBBS, F. W., *ed.* 163
Handbook of heavy construction. N.Y., [etc.], London, McG-H, 1959. xii, [1040]pp., illus., tables, diagrs., bibliog. $18.50; 143*s* 6*d*. *McGraw-Hill handbooks*.
B Covers concrete, steel, timber, highways, pipelines, foundations, miscellaneous equipment, excavation and transport of earth and rock, and operations and general contracting problems. Various paging.

629 Transport engineering

629.13 Aeronautical engineering

164
ADVANCED aero engine testing: papers presented at the joint meeting of the AGARD Combustion and Propulsion and Wind Tunnel and Model Testing Panels, Copenhagen, Denmark, October, 1958, ed. by A. W. Morley and J. Fabri. London, [etc.], Los Angeles, Pergamon P. for and on behalf of AGARD, NATO, 1959. ix,298pp., illus., tables, diagrs., bibliogs. 63*s*; $9. *AGARDograph no. 37*.
C

NAYLER, J. L. 165
Dictionary of aeronautical engineering. Newnes, 1959. vi,318pp., tables, diagrs. 30*s*.
D Of particular value to students at technical colleges and apprentices in the industry.

63 AGRICULTURE

COOKE, G. W. 166
Fertilizers and profitable farming. Crosby Lockwood, 1960. xviii,122pp., tables, diagrs., bibliog. 15*s*.

B Practical manual including discussion of nature of fertilizers, correct balance between plant foods, and methods of calculating fertilizer dressings and their cost.

DELORIT, R. J. *and* AHLGREN, H. L. 167
Crop production. 2nd ed. Englewood Cliffs (N.J.), [London], Prentice-Hall, 1959. vi,666pp., illus., tables. $5.60; 50*s*. *Vocational agriculture series*.

B Technical and applied work mainly concerned with cereal and forage crops in the U.S.A.; of use to farmers, farm institutes, and advisory workers.

GREAT BRITAIN. Department of Scientific and Industrial Research. 168
Pest Infestation Research Board.
Pest Infestation Research 1958: the report of the Pest Infestation Research Board with the report of the Director of Pest Infestation Research. HMSO, 1959. iv,55pp., plates, tables, diagrs., bibliog. 5*s*.

D Reviews the year's work on biology, biochemistry, grain storage, insecticides, fumigants, and in the field of overseas liaison. For those concerned in research, and in production and application of pesticides in agriculture and industry.

IVINS, J. D., *ed.* 169
The measurement of grassland productivity: proceedings of the University of Nottingham sixth Easter school in agricultural science, 1959. London, Butterworths Scientific; [N.Y., Academic P.], 1959. viii,217pp., plates, tables, diagrs., bibliogs. 35*s*; $7.

C Covers methods of measurement and interpretation of resulting data. Of more value to research or advisory workers than to farmers.

MOORE, W. C. 170
British parasitic fungi: a host-parasite index and a guide to British literature on the fungus diseases of cultivated plants. Cambridge, CUP, 1959. xvi,430pp., 45*s*.

C Under each parasite the diseases it causes are enumerated and their distribution and prevalence noted, with annotated references to British literature.

636 Livestock

COLE, H. H. *and* CUPPS, P. T. 171
Reproduction in domestic animals; vol. 2. N.Y., [London], Academic P., 1959. 451pp., illus., diagrs., bibliog. $13; 93*s*.

B

FISHWICK, V. C. 172
Pigs: their breeding, feeding, and management. 7th ed. rev. Crosby Lockwood, 1959. 246,[9]pp., plates, tables, diagrs. 20*s*.

B Nearly one-third new material, including section on grading and marketing. Full discussion of costs and returns. For the practical pigkeeper.

65 COMMERCE. ORGANIZATION. COMMUNICATIONS

658 Industrial management

CARTER, C. F. *and* WILLIAMS, B. R. 173
Science in industry: policy for progress, by C. F. Carter and B. R. Williams on behalf of the Science and Industry Committee. OUP, 1959. ix,186pp., tables. 21*s*.

A–B This final volume of trilogy dealing with factors affecting growth of scientific ideas in industry suggests ways in which industry can help itself to be more conscious of developments, and ways in which the government could forward this end.

CHAPANIS, A. 174
Research techniques in human engineering. Baltimore, Johns Hopkins P.; [London, OUP], 1959. xii,316pp., tables, diagrs., bibliog. $6; 48*s*.

B Well-documented discussion of methods of solving practical problems relating to the adaptation of machines and their operation to human capacities.

CURRIE, R. M. 175
Work study, with a foreword by Sir E. Smith. Pitman, 1960. xv,232pp., tables, diagrs. 22*s* 6*d*. [*British Institute of Management publications*.]

A–B Basic rather than exhaustive. Experience and knowledge gained through ten years' work with one of Britain's largest industrial organizations.

DODGE, H. F. *and* ROMIG, H. G. 176
Sampling inspection tables: single and double sampling. 2nd ed. rev. and exp. N.Y., Wiley; London, C & H, 1959. xi,224pp., tables, diagrs. $8; 64*s*. *Wiley publications in applied statistics, ed. by W. A. Shewhart, S. S. Wilks.*

C Previous edition 1945.

66 CHEMICAL TECHNOLOGY

177
COSMETIC science: proceedings of the congress organized by the Society of Cosmetic Chemists of Great Britain held at University College, London, 15–17 April, 1959, ed. by A. W. Middleton. Butterworths Scientific, 1959. xv, 327pp., illus., tables, diagrs., bibliogs. 60*s*.

C Deals with analysis of raw materials, assessment of finished products, manufacturing and processing, and biological assessment.

EUROPEAN GENERAL GALVANIZERS ASSOCIATION 178
International conference on hot dip galvanizing, 5th, Holland and Belgium, June 1958: edited proceedings of the Benelux Conference held by the European General Galvanizers Association in Holland and Belgium, June 1958. Zinc Development Association, 1958. [9],355pp., illus., plates, tables, diagrs., bibliog. 63*s*.

C Includes carefully edited discussions and additional material, making it a valuable work of reference.

179
PRECIPITATION processes in steels: report of a conference held in the University of Sheffield, 2–4 July 1958, and organized by the Department of Metallurgy. Iron and Steel Institute, 1959. xiv,322pp., illus., tables, diagrs., bibliogs. 84*s*. *Special report no. 64.*

C Sixteen papers presented in four groups, dealing respectively with ferritic steels, austenitic steels, intergranular fracture in steels, and precipitation during creep.

69 BUILDING

CORNS, J. A. 180
Staircase manual. Cleaver-Hume, 1959. viii,143pp., illus., plates, tables, diagrs. 30*s*.

B Design, estimating, and construction, with selected working drawings.

GREAT BRITAIN. Department of Scientific and Industrial Research. 181
Building Research Station.
Organization of building sites: European productivity agency project no. 302/1. HMSO, 1959. x,186pp., plates, tables. 21*s*. *National building studies: special report no. 29.*

B Results of a study carried out in nine European countries into supervision, planning and programming, cost control, incentives, safety and welfare. Differences in local conditions make assessment of relative merits of systems impossible.

GREAT BRITAIN. Department of Scientific and Industrial Research. 182
Building Research Station.
Principles of modern building; vol. 1. 3rd ed. HMSO, 1959. x,302pp., plates, tables, diagrs., bibliog. 20*s*.

B First edition 1939, now largely rewritten. Both a framework of study for students and reference book for practitioners.

MITCHELL, G. A. *and* MITCHELL, A. M. 183
Advanced building construction; [vol. 1], components, services, and finishes. 17th ed. rev. by D. Nield. Batsford, 1959. xii,436pp., tables, diagrs. 21*s*.

B Covers joinery, metals and metalwork, sanitation, hot water supply, heating and ventilation, electrical and other services, floor finishes, wall and ceiling finishes, insulation, painting and decorating, glass products and glazing.

PORGES, J. 184
Handbook of heating, ventilating, and air conditioning: useful tables and data arranged in a manner convenient for ready reference, with eight folding charts. Newnes, 1960. 4th ed. Tables, diagrs., bibliog. 30*s*.

D Previous edition 1952, considerably revised. Primarily a book of data useful to the practical heating and ventilating engineer. Various paging.

7 FINE ARTS

77 PHOTOGRAPHY

ASPDEN, R. L. 185
Electronic flash photography: a survey of principles and practical techniques in industry, research, and radiography. Temple P., 1959. xvi,192pp., illus., plate, diagrs., bibliog. 37*s* 6*d*.

B The author is responsible for research and development in high-speed photography at the Royal Aircraft Establishment.

DENSHAM, D. H. 186
The construction of research films. Pergamon P. for AGARD, NATO, 1959. vii,104pp.,illus., diagrs. 30*s*.

B Practical work of value to any organization producing its own instructional, research, and documentary films.

LUTHER, F. 187
Microfilm: a history, 1839–1900. Annapolis, National Microfilm Association, 1959. [8],195pp., $7.50.

B Well-documented history of the early development of microfilm.

SHARPS, W. S. 188
Dictionary of cinematography and sound recording. Fountain P., 1959. 144pp., illus., tables, diagrs. 15*s* 6*d*.

D Guide to the technical vocabulary used in cinematography and sound recording, with additional data on certain specialized sections of these processes by a television and film advertising consultant.

SPOONER, P. 189
Business films: how to make and use them. Business Publs in association with Batsford, 1959. ix,360,14pp., tables, diagrs. bibliog. 45*s*.

B Provides the non-specialist executive with a working guide to making and applying commercial films; by the editor of *Business*.

VICKERS, J. 190
Making and printing colour negatives. Fountain P., 1959. 194,[6]pp., plates, tables, diagrs., bibliog. 30*s*.

A–B Covers all aspects of work with negative-positive materials, including exposure, negative processing and colour print exposure and processing, masking, and retouching. For amateur photographers.

Publishers

THE FOLLOWING ABBREVIATIONS ARE USED IN ASLIB BOOK LIST

A & U	Allen & Unwin
B & S	Bailey & Swinfen
C & H	Chapman and Hall
CUP	Cambridge University Press
EUP	English Universities Press
HMSO	Her Majesty's Stationery Office
McG-H	McGraw-Hill
O & B	Oliver and Boyd
OUP	Oxford University Press
R & KP	Routledge & Kegan Paul
ULP	University of London Press

Subject Index

REFERENCE IS TO UDC NUMBER

Aeronautical engineering 629.13
Agriculture 63
Applied sciences 6

Botany 58
Building 69

Chemical technology 66
Chemistry 54
Civil engineering 624
Commerce. Organization. Communications 65

Education 37
Electrical engineering 621.3
Engineering 62

Fine Arts 7

Human work 007

Industrial management 658

Livestock 636

Materials testing 620.1
Mechanical engineering 621

Medical sciences 61
Mineralogical sciences 548

Natural sciences 5

Philology 4
Photography 77
Physics 53

Social sciences 3

Transport engineering 629

Author or Title Index

Advanced aero engine testing, 164
Advisory Group for Aeronautical Research, 164
Ahlgren, H. L., 167
Alkin, R. H., 133
Aspden, R. L., 185

Basic electronics, 153
Beer, S., 126

Carter, C. F., 173
Chapanis, A., 174
Cole, H. H., 171
Condoyannis, G. E., 130
Cooke, G. W., 166
Corns, J. A., 180
Cosmetic science, 177
Craig, S. Ross-, 145
Cullwick, E. G., 154
Cupps, P. T., 171
Currie, R. M., 175

Dana, [J. D.], 143
Delorit, R. J., 167
Densham, D. H., 186
Department of Scientific and Industrial Research, 168, 181–2
Dodge, H. F., 176
Drake, R. M., *ed.* 136

Edmundson, J., 127
European General Galvanizers Association, 178

Feather, N., 134
Fisher, K. H., 149
Fishwick, V. C., 172
Fowler, P. H., 139
Fuqua, M. E., 149

Gage, J. C., *ed.* 147
Galloway, I. A., *ed.* 148
Gaynor, F., 131
Great Britain. Department of Scientific and Industrial Research, 168, 181–2

Hartshorne, N. H., 135
Hawley, W. G., 155
Hinze, J. O., 136
Hurlbut, C. S., *ed.* 143

International Union of Pure and Applied Chemistry, 147
Ivins, J. D., *ed.* 169

Kingery, W. D., 137
Kline, S. J., *ed.* 136
Krieger, S. Woinowsky-, 151
Kuethe, A. M., 138

Lewis, I. A. D., 156
Ling, Wang, 132
Luther, F., 187

Middleton, A. W., *ed.* 177
Middleton, H. A., 157
Mitchell, A. M., 183
Mitchell, G. A., 183
Moore, W. C., 170
Morgan, J. H., 150

Nayler, J. L., 165
Needham, J., 132
Nield, D., *rev.* 183

Peel, H. I. F., 158
Pennycuick, K., *ed.* 126
Perkins, D. H., 139
Porges, J., 184
Powell, C. F., 139
Precipitation processes in steels, 179

Rider, J. F., 159
Rodgers, T. M., 160
Romig, H. G., 176
Ross-Craig, S., 145
Royal Electrical & Mechanical Engineers, *rev.* 153
Ryan, P. W. S., 162

Schetzer, J. D., 138
Science Teachers' Joint Sub-committee, 128
Sears, F. W., 140
Sharps, W. S., 188
Sheffield University, Department of Metallurgy, 179
Shewhart, W. A., *ed.* 176
Singer, J. R., 161
Sinkankas, J., 144
Smith, C. J., 141
Sneedon, J-B. O., 152
Society of Cosmetic Chemists of Great Britain, 177
Spooner, P., 189
Stableforth, A. W., *ed.* 148
Steward, F. C., *ed.* 146
Strafford, N., *ed.* 147
Stuart, A., 135
Stubbs, F. W., *ed.* 163
Swainger, K., 142

Timoshenko, S., 151
Truhaut, T., *ed.* 147

Uslan, D., 159

Van Valkenburgh, Nooger & Neville, 153
Vickers, J., 190

Wang Ling, 132
Ward, W. E., 129
Wells, F. H., 156
Wilks, S. S., *ed.* 176
Williams, B. R., 173
Wilson, E. D., 149
Woinowsky-Krieger, S., 151

Young, H. P., *ed.* 155

Zemansky, M. W., 140

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3 SOCIAL SCIENCES

KURSH, H. 191
Inside the U.S. Patent Office: the story of the men, the laws, and the procedures of the American patent system. N.Y., Norton, 1959. xviii,171pp., illus., bibliog. $3.95.

A–B Informative account of patent practice in the United States, including chapters on the Scientific Library and its system of classification.

LIPSET, S. M. *and* BENDIX, R. 192
Social mobility in industrial society. London, [etc.], Toronto, Heinemann; [Berkeley, University of California P.], 1959. xxi,309pp., tables, diagrs. 30*s*; $5.

B–C Study of existing and new material on important practical problems, including whether 'getting to the top' is as hard in Britain and as easy in America as we assume.

33 ECONOMICS

ALLEN, R. G. D. 193
Mathematical economics. 2nd ed. London, Macmillan; N.Y., St Martin's P., 1959. xviii,812pp., tables, diagrs., bibliogs. 63*s*; $10.

C Standard work first published 1956. Sections completely revised include those on time lags in dynamic models, general economic equilibrium, and dual problem in linear programming.

LANGE, O. 194
Introduction to econometrics, prepared with the collaboration of A. Banasinski, on the basis of lectures delivered at the University of Warsaw, tr. by E. Lepa. London, [etc.], Los Angeles, Pergamon P.; Warsaw, Państwowe Wydawnictwo Naukowe, [1959]. 384pp., tables, diagrs., bibliog. 35*s*.

C Introduction to application of higher mathematics to forecasting, market analysis, input-output analysis, and national planning. Presented from Marxian standpoint.

37 EDUCATION

INTERNATIONAL ASSOCIATION OF UNIVERSITIES 195
International handbook of universities, 1959; ed. H. M. R. Keyes. Paris, the Association, 1959. xi,338pp. 2000 *fr*; 30*s*.

D Classified information on university institutions in some seventy countries not covered by *Commonwealth universities yearbook* and *American universities and colleges*.

5 NATURAL SCIENCES

51 MATHEMATICS

BUSH, R. R. *and* ESTES, W. K., *eds* 196
Studies in mathematical learning theory. Stanford (Calif.), Stanford U.P.; London, OUP, 1959. viii,432pp., tables, diagrs. $11.50; 92*s*. *Stanford mathematical studies in the social sciences, ed. by K. J. Arrow and others, no. 3.*

C

LANGER, R. E., *ed.* 197
Boundary problems in differential equations: proceedings of a symposium conducted by the Mathematics Research Center at the University of Wisconsin. Madison, April 21–22, 1959. Madison, University of Wisconsin P., 1960. x,324pp., tables, diagrs., bibliogs. $4. *Mathematics Research Center, publication no. 2.*

C Nineteen memoirs contributed by international experts. For research workers in boundary value problems.

SCHEFFÉ, H. 198
The analysis of variance. N.Y., Wiley; London, C & H, 1960. xvi,477pp., tables, diagrs., bibliogs. $14; 112*s*. *Wiley publications in mathematical statistics.*

B The analysis of measurements which depend on a set of simultaneous effects is described in mathematical terms, using vectors and matrices. Data from real-life problems are given for analysis.

SLATER, L. J. 199
Confluent hypergeometric functions. Cambridge, CUP, 1960. x,247pp., tables, diagrs., bibliog. 65*s*.

C Compendium of concise theory and numerical tables by author well known for research memoirs on subject. Should prove standard work of reference on these functions.

52 ASTRONOMY

526 Geodesy

BANNISTER, A. *and* RAYMOND, S. 200
Surveying. Pitman, 1959. vii,438pp., illus., plate, tables, diagrs. 45*s*. [*Engineering degree series*].

B The elements of surveying written in concise form for students reading for a London External B.Sc. or for professional examinations at a similar level.

CLENDINNING, J. 201
The principles of surveying. 2nd ed. Blackie, 1960. xv,376pp., illus., tables, diagrs. 30*s*.

B With the author's *Principles and use of surveying instruments* forms comprehensive grounding in elements of plane surveying. Six new chapters on field astronomy.

WAIT, J. R., *ed.* 202
Overvoltage research and geophysical applications. London, [etc.], Los Angeles, Pergamon P., 1959. viii,158pp., tables, diagrs., bibliogs. 55*s*; $9. *International series of monographs on earth sciences, ed. by E. Ingerson, vol. 4.*

C History, theory, and laboratory and field experimental techniques, with analysis and interpretation of results of overvoltage research as a tool in geological prospecting.

53 PHYSICS

BELL, D. A. 203
Electrical noise: fundamentals and physical mechanism. London, [etc.], Princeton (N.J.), Van Nostrand, 1960. x,342 pp., tables, diagrs., bibliogs. 50*s*.

C Reference and source book on noise in physical devices, for electrical engineers and physicists.

BERSHADER, D., *ed.* 204
The magnetodynamics of conducting fluids: [proceedings of the third symposium on magnetohydrodynamics sponsored by Lockheed Aircraft Corporation, Missiles and Space Division, November 21 and 22, 1958]. Stanford (Calif.), Stanford U.P.; [London, OUP], 1959. viii,145pp., illus., diagrs., bibliogs. $4.50; 36*s*.

C Seven analytical papers on flow problems in conducting fluids under the influence of magnetic fields. For research workers in astrophysics, geophysics, aerodynamics, plasma physics, and thermonuclear fusion.

BIRKS, J. B. *and* SCHULMAN, J. H., *eds* 205
Progress in dielectrics; vol. 2. Heywood, 1960. vii,225pp., tables, diagrs., bibliogs. 55*s*.
C Six critical reviews of advanced research on dielectric properties of insulating materials in weak electric fields, covering work done in many countries. Extensive references.

GIBSON, A. F. *and others, eds* 206
Progress in semiconductors; vol. 4, ed. by A. F. Gibson, R. E. Burgess, and F. A. Kröger. Heywood, 1960. vii,292pp., plates, tables, diagrs., bibliogs. 3 *gns*.
C Review papers covering a wide range of topics in solid state and semiconductor physics.

LAWDEN, D. F. 207
A course in applied mathematics; part I, dynamics; part II, statics; part III, field theory; part IV, hydromechanics. EUP, 1960. xv,655pp., table, diagrs. 70*s*. *Physical science texts, gen. ed. Sir G. Sutton.*
B For degree students of mathematics or engineering science. Available in two volumes at 40*s* each.

PENNER, S. S. 208
Quantitative molecular spectroscopy and gas emissivities. Reading (Mass.), Addison-Wesley; London, Paris, [etc.], Pergamon P., 1960. xv,587pp., tables, diagrs., bibliogs. $15; 5 *gns*.
C Advanced text on applied quantitative spectroscopy, specially designed for requirements of high-temperature physics encountered in missile propulsion. Wide range of topics is discussed.

REINER, M. 209
Deformation, strain, and flow: an elementary introduction to rheology. 2nd ed. H. K. Lewis, 1960. xvi,347pp., illus., tables, diagrs., bibliog. 3 *gns*.
C Modified and enlarged edition of *Deformation and flow*, 1949. For graduates interested in materials testing.

539.1 Nuclear physics

HANDLOSER, J. S. 210
Health physics instrumentation. London, [etc.], N.Y., Paris, Pergamon P., 1959. x,182pp., plates, tables, diagrs., bibliogs. 42*s*; $6.50. International series of monographs on nuclear energy. *Division 5. Health physics, vol. 1.*
B General description of use and operation of radiation detectors and monitors, for those concerned with control of radiation hazards. Deals almost entirely with American instruments.

WEHR, M. R. *and* RICHARDS, J. A. 211
Physics of the atom. Reading (Mass.), London, Addison-Wesley, [1960]. xi, 420pp., illus., tables, diagrs., bibliogs. $6.50; 49*s*.
A–B Up-to-date introductory text for sixth form and first-year degree students and general readers with elementary scientific and mathematical knowledge. Includes chapters also on relativity, solid state physics, and related topics.

54 CHEMISTRY

ALEXANDER, P. *and* BLOCK, R. J., *eds* 212
A laboratory manual of analytical methods of protein chemistry (including polypeptides); vol. 1, the separation and isolation of proteins. London, [etc.,] N.Y., Paris, Pergamon P., 1960. viii,254pp., plates, tables, diagrs., bibliogs. 50*s*; $8.50.
C First volume of important projected three-volume work.

FUCHS, N. A. 213
Evaporation and droplet growth in gaseous media, tr. from the Russian by J. M. Pratt, ed. by R. S. Bradley. London, [etc.], N.Y., Paris, Pergamon P., 1959. [6],72pp., illus., table, diagrs., bibliog. 30*s*; $5.50.
C Covers kinetics of evaporation and growth of droplets of pure liquids. Evaporation from solution is not dealt with. Typewriter script.

MAJER, J. R. 214
Analysts pocket book. Butterworths Scientific, 1959. ix,100pp., tables, bibliog. 17*s* 6*d*.
D Supplies all quantitative information normally required by analysts for their calculations.

MARVEL, C. S. 215
An introduction to the organic chemistry of high polymers. N.Y., Wiley; London, C & H, [1960]. 82pp., tables, diagrs. $4.50; 36*s*.
B Authoritative introduction to subject, including most recent developments, for those with knowledge of basic chemistry.

PALMER, W. G. 216
Valency: classical and modern. 2nd ed. Cambridge, CUP, 1959. xi,244pp., tables, diagrs., bibliog. 30*s*.
C Introductory textbook covering all aspects likely to be needed by non-mathematical chemists.

PARSONS, R., *comp.* 217
Handbook of electrochemical constants. London, Butterworths Scientific; N.Y., Academic P., 1959. viii,110pp., tables. 30*s*; $6.
D Provides in tabular form all electrochemical constants normally required by technologists.

55 GEOLOGY

KING, C. A. M. 218
Beaches and coasts. Edward Arnold, 1959. xii,403pp., illus., tables, diagrs., bibliogs. 65*s*.
C For advanced students of geography, civil engineers, and others interested in the experimental techniques and results of coastal survey.

LANDES, K. K. 219
Petroleum geology. 2nd ed. N.Y., Wiley; London, C & H, 1960. xi,443pp., illus., tables, diagrs., bibliog. $9.50; 76*s*.
B Completely revised book by Professor of Geology at the University of Michigan. Origin, migration, and trapping of oil.

57 BIOLOGY

ATKINS, H. J. B., *ed.* 220
Tools of biological research, with an intro. by Sir C. Hinshelwood. Oxford, Blackwell Scientific, 1959. xvi,183pp., plates, diagrs., bibliogs. 37*s* 6*d*.
C Concise accounts of newer experimental techniques employed in zoological and medical research, with critical assessment of some recent results obtained by them.

BEGG, C. M. M. 221
An introduction to genetics. EUP, 1959. xi,292pp., illus., tables, diagrs., bibliogs. 35*s*. *Biological science texts, gen. ed. W. S. Bullough.*
B Most aspects of genetics are introduced, including genetics of populations and breeding systems, cytoplasmic inheritance, chemistry of chromosomes, and relationship between genes, enzymes, and embryology. Excellent diagrams.

577.1 Biochemistry

DAWSON, R. M. C. *and others, eds* 222

Data for biochemical research, ed. by R. M. C. Dawson, D. C. Elliott, W. H. Elliott, K. M. Jones. Oxford, Clarendon P., 1959. xiii,300pp., tables, diagrs. 63*s*.

B and D Collection of physical data and of references to the preparation and estimation of a large number of compounds of biochemical interest, as well as much other information of value to research workers in biochemistry.

6 APPLIED SCIENCES

61 MEDICAL SCIENCES

NEUBAUER, O. 223

Bibliography of cancer produced by pure chemical compounds: a survey of the literature up to and including 1947. OUP, 1959. xxv,604pp. 42*s*.

C–D Reasonably complete bibliography divided into author and classified subject sections, with an index of tumour sites and special kinds of tumour. Titles are given for each paper.

YAPP, W. B., *ed.* 224

The effects of pollution on living materials. Institute of Biology, 1959. xii, 154pp., plate, tables, diagrs., bibliogs. 25*s*. *Symposia of the Institute of Biology, no. 8.*

C Papers dealing with the biological effects of water and atmospheric pollution and the disposal of radioactive wastes.

62 ENGINEERING

620.1 Materials testing

AVERBACH, B. L. *and others, eds* 225

Fracture: proceedings of an international conference on the atomic mechanisms of fracture held in Swampscott, Mass., April 12–16, 1959, sponsored by National Science Foundation, Office of Naval Research, Air Force Office of Scientific Research, Ship Structure Committee, organized and directed by the National Academy of Sciences—National Research Council, ed. by B. L. Averbach, D. K. Felbeck, G. T. Hahn, D. A. Thomas. Cambridge (Mass.), Technology P., N.Y., Wiley; London, C & H, 1960. xvii,646pp., illus., tables, diagrs., bibliogs. $17.50; 140*s*.

C Twenty-seven papers and summary of discussion divided into two parts: cleavage fracture, and fatigue and ductile fracture.

EVANS, U. R. 226

The corrosion and oxidation of metals: scientific principles and practical applications. Edward Arnold, 1960. xi,1094pp., tables, diagrs., bibliogs. 140*s*.

C Advanced reference book for academic and industrial workers by recognized world authority on corrosion theory. Replaces his *Metallic corrosion passivity and protection*, last edition 1946.

621 Mechanical engineering

ANDERSEN, S. A. 227

Automatic refrigeration. MacLaren for Danfoss, Denmark, 1960. xv,649pp., illus., tables, diagrs., bibliog. Supplementary diagrams in separate case. 85*s*.

B–C Covers automatic control of refrigeration plants and role of humidity of the air. Up-to-date survey of the field, material not being readily obtainable elsewhere.

LARSEN, S. A. 228

Packaging research: an inventory. N.Y., American Management Association; [London, B & S], 1959. 207pp., bibliog. $6; 48*s*. *A.M.A. research study no. 37.*

D Comprehensive bibliography of recent literature together with survey of current trends and future needs in packaging research.

621.039 Nuclear engineering

ELLIS, R. H. 229

Nuclear technology for engineers. N.Y., [etc.], London, McG-H, 1959. x, 284pp., illus., tables, diagrs. $9.50; 74*s*. *McGraw-Hill series in nuclear engineering, ed. by W. H. Zinn and J. D. Luntz.*

B Broad introduction to the main applications of atomic energy: radioisotope technology, ionizing radiations, nuclear reactors. For engineers, engineering students, and the general reader.

230

NUCLEAR electronics: proceedings of the international symposium on nuclear electronics organized by the French Society of Radioelectricians; part I (sessions 1–5); part II (sessions 6–9). Vienna, International Atomic Energy Agency; [London, HMSO], 1959. xii,452;VII,381pp., illus., tables, diagrs., bibliogs. 24*s* per part.

C Eighty-eight papers in French and English, with record of discussions.

SINCLAIR, S. 231

Windscale: problems of civil construction and maintenance, with a foreword by H. G. Davey. Newnes, 1960. viii,136pp., diagrs., plates, 25*s*.

A Account of organization and carrying out to tight time schedule of large-scale engineering works with some unusual features.

623 Military and Naval engineering

BARRÈRE, M. *and others* 232

Rocket propulsion, by M. Barrère, A. Jaumotte, B. F. de Veubeke, J. Vandenkerckhove, with preface by M. Roy and intro. by T. von Kármán, [tr. from the French]. Amsterdam, London, [etc.], Elsevier, 1960. xxxi,829pp., illus., tables, diagrs., bibliogs. 70 *fl*; 135*s*.

C Contains critical assessment of theory involved in design of rockets, and much experimental data based on actual flight tests. Originally published as *La propulsion par fusées*. Distributed by Van Nostrand.

625 Rail and Road engineering

HICKERSON, T. F. 233

Route surveys and design. 4th ed. N.Y., [etc.], London, McG-H, 1959. xvi, 568pp., plate, tables, diagrs., bibliog. $8.50; 66*s*.

C First published as *Route location and surveying*; new title indicates scope of revision. 226 pages of tables. For use on site or for study.

JENKINS, R. B. M. 234

Curve surveying. Cleaver-Hume, 1960. 184pp., tables, diagrs. 35*s*.

C Covers setting-out and alignment of railway and road curves.

YODER, E. J. 235

Principles of pavement design. N.Y., Wiley; London, C & H, [1959]. xvi,569pp., illus., tables, diagrs., bibliog. $13.25; 106*s*.

C Written for U.S. conditions. Deals with principles and practice in design of roads and airfield pavements. Covers materials, tests, and standards, but not surveying.

63 AGRICULTURE

HAENSCH, G. *and* HABERKAMP, G. 236

Dictionary of agriculture: German–English–French–Spanish; systematical and alphabetical. Crosby Lockwood, 1959. XXIV,649pp., 85*s*.

D First part is divided into some sixty subjects and based on German list; followed by alphabetical indexes of the four languages, numbered with reference to first part.

66 CHEMICAL TECHNOLOGY

BLAIS, J. F. 237
Amino resins. N.Y., Reinhold; London, C & H, 1960. xi,220pp., illus., tables, diagrs., bibliogs. $5; 40*s*. *Reinhold plastics applications series.*
B Review of applications of urea and melamine resins, describing also some newer developments relating to resins from ethylene urea, triazones, and benzo-guanamines.

DIN, F. *and* COCKETT, A. H. 238
Low-temperature techniques. Newnes, 1960. viii,216pp., plates, tables, diagrs., bibliogs. 40*s*. *Newnes practical science books.*
B Concise account of principles and practice of low-temperature techniques, with emphasis on practical aspects.

HEDGES, E. S., *ed.* 239
Tin and its alloys, ed. by E. S. Hedges with the collaboration of J. W. Cuthbertson, E. C. Ellwood, W. E. Hoare, and W. R. Lewis. Edward Arnold, 1960. viii,424pp., illus., tables, diagrs., bibliogs. 6 *gns.*
C Authoritative, comprehensive review of properties and uses of tin and its alloys, which should become the standard reference work on the subject.

WILSON, A. C. 240
Industrial thermal insulation: materials, application, methods, specifications. N.Y., [etc.], London, McG-H, 1959. xi,295pp., illus., tables, diagrs. $9; 70*s*.
C Modern methods of insulating piping, equipment, and structures against internal or external heat. For designers and maintenance engineers.

67/68 MANUFACTURES

AIROV, J. 241
The location of the synthetic fiber industry: a case study in regional analysis. Cambridge (Mass.), Technology P.; N.Y., Wiley; London, C & H, 1959. xii, 203pp., tables, diagrs. $9.75; 78*s*.
C Deals with the five major synthetic polymer fibres (nylon, Orlon, Acrilan, dynel, and Dacron). Physical relationship between inputs and outputs is estimated and costs of inputs in different regions computed.

COOK, J. G. 242
Handbook of textile fibres. Watford (Herts.), Merrow, 1959. xxv,422pp. 15*s*.
B Data on production and processing, structure and properties, and behaviour in use of chief natural and man-made fibres.

DE VRIES, L., *ed.* 243
Wörterbuch der textilindustrie; vol. 1, deutsch–englisch. Wiesbaden, Brandstetter Verlag; London, B & S, 1959. 386pp. 23 DM; 46*s*.
D German–English textile dictionary by lexicographer of repute.

NISSAN, A. H., *ed.* 244
Textile engineering processes. Butterworths Scientific, 1959. ix,366pp., illus., plates, tables, diagrs., bibliogs. 60*s*.
B Account of chief processes in textile manufacture, from the engineer's viewpoint.

PRESS, J. J., *ed.* 245
Man-made textile encyclopedia. N.Y., London, Interscience, [1959]. xiv, 913pp., illus., tables, diagrs. $27.50; 200*s*.
D Claimed to be fully integrated guide to man-made textiles. Contributions written by specialists for general technologists and specialists in related fields.

246
REVIEW of textile progress; vol. ten, 1958. Textile Institute, Society of Dyers and Colourists, Butterworths Scientific, 1959. 494pp., tables. 50*s*.

D This series has considerable current value and forms a reference book for past years. Unfortunate time-lag in publication.

681 Precision mechanisms

GRABBE, E. M. *and others, eds* 247
Handbook of automation, computation, and control, prepared by a staff of specialists, ed. by E. M. Grabbe, S. Ramo, D. E. Wooldridge; vol. 2, computers and data processing. N.Y., Wiley; London, C & H, [1959]. xxv,[1100]pp., illus., tables, diagrs., bibliog. $17; 140*s*.

C Up-to-date reference book. Various paging.

HERSEE, E. H. W. 248
A simple approach to electronic computers. Blackie, 1960. viii,104pp., tables, diagrs. 12*s* 6*d*.

A For intelligent readers who want a simple description of what electronic computers do; electrical circuits are not described.

249
THE INSTRUMENT manual. 3rd ed. ed. by J. T. Miller. United Trade P., 1960. [8],742pp., illus., tables, diagrs. 5 *gns*.

D Survey covering every aspect of instruments and instrumentation. Previous edition 1953.

69 BUILDING

CARRIER, W. H. *and others* 250
Modern air-conditioning, heating, and ventilating, by W. H. Carrier, R. E. Cherne, W. A. Grant, W. H. Roberts. 3rd ed. N.Y., [etc.], London, Pitman, [1960]. xvi,592pp., illus., tables, diagrs., bibliog. 80*s*.

B Previous edition 1950. Enlarged, with complete revision of all chapters where there has been recent progress. For engineering students and practitioners.

PENN, C. *and* SOLEY, D. 251
Heating and hot-water supply for domestic and other buildings. Batsford, 1960. 216pp., plates, tables, diagrs., bibliog. 35*s*.

B Basic principles and practice of heating, for architect or builder who wishes to assess the heating engineer's specification and work.

REYNOLDS, C. E. 252
Examples of the design of reinforced concrete buildings in accordance with British Standard codes. Rev. ed. Concrete Publs, 1959. vi,265pp., tables, diagrs. 12*s* 6*d*. *Concrete series*.

B Previous edition 1952.

7 FINE ARTS

77 PHOTOGRAPHY

CAMERON, J. R. *and* CIFRE, J. S., *comps* 253
Motion picture encyclopedia. 6th ed. Coral Gables (Fla.), Cameron, 1959. Illus., plates, diagrs. $15.

D Standard reference work, brought up to date. With no pagination or index, reliance is placed entirely on alphabetical arrangement.

JAMES, T. H. *and* HIGGINS, G. C. 254
Fundamentals of photographic theory. 2nd ed. N.Y., Morgan & Morgan; London, Fountain P., 1960. 345pp., illus., tables, diagrs., bibliogs. $7.50; 3 *gns*.

B Fully revised book by members of research staff of Eastman-Kodak. Well-balanced account without detail of an advanced treatise.

Publishers

THE FOLLOWING ABBREVIATIONS ARE USED IN ASLIB BOOK LIST

A & U	Allen & Unwin
B & S	Bailey & Swinfen
C & H	Chapman and Hall
CUP	Cambridge University Press
EUP	English Universities Press
HMSO	Her Majesty's Stationery Office
McG-H	McGraw-Hill
O & B	Oliver and Boyd
OUP	Oxford University Press
R & KP	Routledge & Kegan Paul
ULP	University of London Press

Subject Index

REFERENCE IS TO UDC NUMBER

Agriculture 63
Applied sciences 6
Astronomy 52

Biochemistry 577.1
Biology 57
Building 69

Chemical technology 66
Chemistry 54

Economics 33
Education 37
Engineering 62

Fine Arts 7

Geodesy 526
Geology 55

Manufactures 67/68
Materials testing 620.1
Mathematics 51
Mechanical engineering 621
Medical sciences 61
Military and naval engineering 623

Natural sciences 5
Nuclear engineering 621.039
Nuclear physics 539.1

Photography 77
Physics 53
Precision mechanisms 681

Rail and road engineering 625

Social sciences 3

Author or Title Index

Airov, J., 241
Alexander, P., *ed.* 212
Allen, R. G. D., 193
Andersen, S. A., 227
Arrow, K. J., *ed.* 196
Atkins, H. J. B., *ed.* 220
Averbach, B. L., *ed.* 225

Banasinski, A., 194
Bannister, A., 200
Barrère, M., 232
Begg, C. M. M., 221
Bell, D. A., 203
Bendix, R., 192
Bershader, D., *ed.* 204
Birks, J. B., *ed.* 205
Blais, J. F., 237
Block, R. J., *ed.* 212
Bradley, R. S., *ed.* 213
Bullough, W. S., *ed.* 221
Burgess, R. E., *ed.* 206
Bush, R. R., *ed.* 196

Cameron, J. R., *comp.* 253
Carrier, W. H., 250
Cherne, R. E., 250
Cifre, J. S., *comp.* 253
Clendinning, J., 201
Cockett, A. H., 238
Cook, J. G., 242
Cuthbertson, J. W., 239

Dawson, R. M. C., *ed.* 222
de Veubeke, B. F., 232
De Vries, L., *ed.* 243
Din, F., 238

Elliott, D. C., *ed.* 222
Elliott, W. H., *ed.* 222
Ellis, R. H., 229
Ellwood, E. C., 239
Estes, W. K., *ed.* 196
Evans, U. R., 226

Felbeck, D. K., *ed.* 225
French Society of Radioelectricians, 230
Fuchs, N. A., 213

Gibson, A. F., *ed.* 206
Grabbe, E. M., *ed.* 247
Grant, W. A., 250

Haberkamp, G., 236
Haensch, G., 236
Hahn, G. T., *ed.* 225
Handloser, J. S., 210
Hedges, E. S., *ed.* 239
Hersee, E. H. W., 248
Hickerson, T. F., 233
Higgins, G. C., 254
Hoare, W. E., 239

Ingerson, E., *ed.* 202
Institute of Biology, 224
Instrument Manual, The, 249
International Association of Universities, 195

James, T. H., 254
Jaumotte, A., 232
Jenkins, R. B. M., 234
Jones, K. M., *ed.* 222

Keyes, H. M. R., *ed.* 195
King, C. A. M., 218
Kröger, F. A., 206
Kursh, H., 191

Landes, K. K., 219
Lange, O., 194
Langer, R. E., *ed.* 197
Larsen, S. A., 228
Lawden, D. F., 207
Lepa, E., *tr.* 194
Lewis, W. R., 239
Lipset, S. M., 192
Lockheed Aircraft Corporation, 204
Luntz, J. D., *ed.* 229

Majer, J. R., 214
Marvel, C. S., 215
Miller, J. T., *ed.* 249

National Academy of Sciences, 235
National Research Council, 235
Neubauer, O., 223
Nissan, A. H., *ed.* 244
Nuclear electronics, 230

Palmer, W. G., 216
Parsons, R., *comp.* 217
Penn, C., 251
Penner, S. S., 208
Pratt, J. M., *tr.* 213
Press, J. J., *ed.* 245

Ramo, S., *ed.* 247
Raymond, S., 200
Reiner, M., 209
Review of textile progress, 246
Reynolds, C. E., 252
Richards, J. A., 211
Roberts, W. H., 250

Scheffé, H., 198
Schulman, J. H., *ed.* 205
Sinclair, S., 231
Slater, L. J., 199
Society of Dyers and Colourists, 246
Soley, D., 251
Sutton, *Sir* G., *ed.* 207

Textile Institute, 246
Thomas, D. A., *ed.* 225

Vandenkerckhove, J., 232
Veubeke, B. F. de, 232
Vries, L. De, *ed.* 243

Wait, J. R., *ed.* 202
Wehr, M. R., 211
Wilson, A. C., 240
Wooldridge, D. E., *ed.* 247

Yapp, W. B., *ed.* 224
Yoder, E. J., 235

Zinn, W. H., *ed.* 229

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MALTZOFF, N. 255

Russian reading and conversation. 2nd ed. N.Y. [etc.], London, Pitman, [1960]. v,156pp., diagrs. $2.50; 12*s*.

B Graded reader in colloquial Russian for intermediate students. Thirty-three conversations on different subjects, each with recapitulation in narrative form, and vocabulary.

5 NATURAL SCIENCES

DE BEER, *Sir* G. 256

The sciences were never at war. Nelson, 1960. xv,279pp., plates. 30*s*.

A Compilation of correspondence between scientists and statesmen in England and France during the wars of the eighteenth century and Napoleonic period, showing how war was made to interfere as little as possible with normal scientific intercourse.

HUTCHINGS, E., jr, *ed.* 257

Frontiers in science: a survey, with editorial commentaries by L. A. DuBridge, G. W. Beadle, H. Brown, and H. Mead. A & U, 1960. vi,362pp., plates, diagrs. 25*s*.

A Collected articles by American research workers, explaining in fairly non-technical language the nature and significance of their work.

51 MATHEMATICS

BOCHNER, S. 258

Lectures on Fourier integrals, with an author's supplement on monotonic functions, stieltjes integrals, and harmonic analysis, tr. from the original [German] by M. Tenenbaum and H. Pollard. Princeton (N.J.), Princeton U.P., [London, OUP], 1959. viii,334pp. $5; 40*s*. *Annals of mathematics studies, no. 42, ed. by R. C. Gunning and others.*

C Classic book giving complete account of concrete problems from which modern abstract disciplines have arisen.

EMDE, F. 259

Tables of elementary functions. 3rd ed. Leipzig, Teubner, 1959; [London, Collet's, 1960]. XII,181pp., tables, diagrs., bibliog. 21*s*.

B Convenient collection of tables and diagrams for the elementary functions—trigonometric, exponential, logarithmic. The text, in German and English, is essentially the same as that of the 1940 edition.

JOHNSON, P. O. *and* RAO, M. S. 260

Modern sampling methods: theory, experimentation, application. Minneapolis, University of Minnesota P.; [London, OUP, 1960], 6,87pp., tables, bibliog. $4; 32*s*.

C Results of an investigation of some mathematical sampling methods.

KARLIN, S. 261

Mathematical methods and theory in games, programming, and economics; vol. 1, matrix games, programming, and mathematical economics; vol. 2, the theory of infinite games. Reading (Mass.), London, Addison-Wesley, [1959]. xi,386;x,433pp., tables, diagrs., bibliogs. $10.75; 75*s* per volume. *Addison-Wesley series in statistics, ed. by Z. W. Birnbaum.*

C Rigorous, unified treatment for advanced undergraduate and postgraduate level, and reference book for management, military tactics, and operational research.

KEMENY, J. G. *and* SNELL, J. L. 262
Finite Markov chains. Princeton (N.J.), [etc.], London, Van Nostrand, [1960]. viii,210pp., tables, diagrs. $5; 37*s* 6*d*. *University series in undergraduate mathematics, ed. by J. L. Kelley and P. R. Halmos.*
B First English textbook on the subject.

LEHMANN, E. L. 263
Testing statistical hypotheses. N.Y., Wiley; London, C & H, 1959. xiii,369pp., tables, diagrs., bibliogs. $11; 88*s*. *Wiley publications in mathematical statistics.*
C Advanced textbook on the theory of hypothesis testing and the theory of estimation by confidence sets, together with their principal applications.

264
PROCEEDINGS of the international congress of mathematicians, 14–21 August 1958, ed. by J. A. Todd. Cambridge, CUP, 1960. lxiv,573pp., diagrs., bibliogs. 65*s*.
C Gives vivid picture of current progress and possible future developments in mathematics. Papers in English, French, German, and Russian.

ROBINSON, E. A. 265
An introduction to infinitely many variates. Griffin, 1959. 132pp., bibliog. 28*s*. *Griffin's statistical monographs and courses, no. 6.*
C Measure theory, linear space, and operators are used freely in this concise study of some advanced statistical techniques.

WESTWATER, F. L. 266
Simplified calculus. EUP, 1960. xv,160pp., tables, diagrs. 10*s* 6*d*. *General technical series, ed. by J. R. Morgan.*
B Introduction to a part of mathematics that often frightens the student unnecessarily. Should be of help in such instances.

52 ASTRONOMY

KAPP, O. K. 267
Towards a unified cosmology. Hutchinson, 1960. 303pp., table, diagrs. 35*s*.
A Explains many unsolved phenomena in cosmology on the basis of new unified concepts including minimum assumption, symmetrical impermanence of matter, continuous creation and extinction of matter, and relativistic curved space.

RUDAUX, L. *and* VAUCOULEURS, G. 268
Larousse encyclopedia of astronomy, with an intro. by F. L. Whipple, tr. by M. Guest and J. B. Sidgwick, rev. by Z. Kopal from the *Larousse astronomie*. Batchworth, 1959. ix,506pp., illus., plates, tables, diagrs. 63*s*.
A Well-written and lavishly illustrated survey of modern astronomy, with emphasis on the solar system and useful chapters on stars and galaxies and on instruments and techniques.

53 PHYSICS

BATCHELOR, G. K., *ed.* 269
The scientific papers of Sir Geoffrey Ingram Taylor, Fellow of Trinity College, Cambridge, Fellow and formerly Yarrow Research Professor of the Royal Society; vol. 2, meteorology, oceanography, and turbulent flow. Cambridge, CUP, 1960. x,515pp., plates, tables, diagrs. 75*s*.
C The second volume of four containing the collected papers of one of the outstanding applied mechanists of the century.

BORN, M., WOLF, E. *and others* 270
Principles of optics: electromagnetic theory of propagation, interference and diffraction of light. London, [etc.], Los Angeles, Pergamon P., 1959. xxvi, 803pp., plates, tables, diagrs. 120*s*; $17.50.
C Deals with optics from the standpoint of Maxwell's electromagnetic theory. Likely to become a standard textbook for students at honours degree and postgraduate level.

BROWN, S. C. 271
Basic data of plasma physics. Cambridge (Mass.), Technology P.; N.Y., Wiley; London, C & H, 1960. viii,336pp., tables, diagrs., bibliogs. $6.50; 52*s*. *Technology Press books in science and engineering.*

C Fundamental data for understanding gas discharges, plasma physics, plasma in controlled thermo-nuclear devices, and upper atmosphere research. Necessary data and background information given in tables and graphs.

CHACE, W. G. *and* MOORE, H. K., *eds* 272
Exploding wires: based on conference on the exploding wire phenomenon, April 1959, conducted by Geophysics Research Directorate, Air Force Cambridge Research Center with the co-operation of Lowell Technological Institute Research Foundation. N.Y., Plenum P.; London, C & H, 1959. ii,373pp., illus., tables, diagrs., bibliog. $9.50; 76*s*.

C

CROSS, A. D. 273
An introduction to practical infra-red spectroscopy. Butterworths Scientific, 1960. vii,80pp., tables, diagrs., bibliogs. 17*s* 6*d*.

B Should be of use to organic chemists and undergraduates unfamiliar with the techniques.

JACKMAN, L. M. 274
Applications of nuclear magnetic resonance spectroscopy in organic chemistry. London, [etc.], N.Y., Paris, Pergamon P., 1959. xii,134pp., tables, diagrs., bibliogs. 35*s*; $5.50. *International series of monographs on organic chemistry, gen. eds D. H. R. Barton and W. Doering; vol. 5.*

B Presents history, theory, and technique of the method, and selected applications to various structural problems. Concise and authoritative.

MILNE-THOMSON, L. M. 275
Theoretical hydrodynamics. 4th ed. London, Macmillan; N.Y., St Martin's P., 1960. xxiii,660pp., plates, diagrs. 65*s*; $10.

C Several important additions to previous edition (1955).

RICHARDS, E. W. T. *and* CREW, M. D. 276
The uranium spectrum between 3500 Å and 5500 Å with associated isotopic shifts. HMSO, 1959. [2],202pp., tables. 26*s*. *U.K.A.E.A. Research Group report R/2941.*

C Brief introduction followed by tables giving details of about 7700 emission lines in the spectra of the 235 and 238 isotopes of uranium.

SPRING, K. H. 277
Photons and electrons. 2nd ed. London, Methuen; N.Y., Wiley, 1960. vii, 133pp., tables, diagrs., bibliog. 10*s* 6*d*. *Methuen's monographs on physical subjects, gen. ed. B. L. Worsnop.*

B Deals with interaction between radiation and electrons, covering such phenomena as the photo-electric effect, the Compton effect, Cherenkov radiation, and cosmic rays.

ZIMAN, J. M. 278
Electrons and phonons: the theory of transport phenomena in solids. Oxford, Clarendon P., 1960. xiv,554pp., tables, diagrs., bibliog. 84*s*. *International series of monographs on physics, gen. eds N. F. Mott and others.*

C Experimental facts and theoretical explanation of electrical and thermal conduction in metals, semiconductors, and insulators, with emphasis on physical interpretation of phenomena.

539.1 Nuclear physics

KRAMISH, A. 279
Atomic energy in the Soviet Union. Stanford (Calif.), Stanford U.P.; London, OUP, 1960. x,236pp., bibliog. $4.75; 27*s* 6*d*.

A Account of Soviet nuclear research and development, based on published sources of information.

54 CHEMISTRY

BELCHER, R. *and* NUTTEN, A. J. 280
Quantitative inorganic analysis. 2nd ed. Butterworths Scientific, 1960. x,390pp., illus., tables, diagrs., bibliogs. 35*s*.

B Revised edition of comprehensive degree course text, notable for attention paid to training the student to develop his own critical appreciation of alternative methods.

PATTISON, F. L. M. 281
Toxic aliphatic fluorine compounds, with a foreword by Sir R. A. Peters. Amsterdam, London, [etc.], Elsevier, 1959. xi,227pp., plates, tables, diagrs., bibliogs. 9.50 *fl*; 18*s*. *Elsevier monographs. Industrial toxic agents, ed. by E. Browning.*

C Outline of chemistry, biochemistry, pharmacology, toxicology, and use of these compounds. For research workers and as reference book for forensic and general medical use. Distributed by Van Nostrand.

282
PROCEEDINGS of the international symposium on microchemistry held at Birmingham University August 20th to 27th 1958, organized by the Midlands Section and the Microchemistry Group of the Society for Analytical Chemistry under the patronage of the International Union of Pure and Applied Chemistry. Oxford, London, N.Y., Paris, Pergamon P. for the organizers, 1960. xxvi, 583pp., plates, tables, diagrs., bibliogs. 100*s*; $15.

C Comprehensive and authoritative review of present state of subject.

55 GEOLOGY

GUTENBERG, B. 283
Physics of the earth's interior. N.Y., London, Academic P., 1959. xii,240pp., illus., tables, diagrs., bibliog. $8.50; 120*s*. *International geophysics series, ed. by J. van Mieghem, vol. 1.*

C Critical survey of latest research and theories in this field.

WOOLDRIDGE, S. W. *and* MORGAN, R. S. 284
An outline of geomorphology: the physical basis of geography. 2nd ed. Longmans, 1959. xix,409pp., illus., diagrs., bibliogs. 32*s*. *University geographical series, gen. ed. L. D. Stamp.*

B Readable and clear presentation suited to students at all levels. First published as *The physical basis of geography: an outline of geomorphology*, 1937.

57 BIOLOGY

DUNN, L. C. 285
Heredity and evolution in human populations. Cambridge (Mass.), Harvard U.P.; London, OUP, 1959. ix,157pp., plate, tables, diagrs. $3.50; 20*s*. *Harvard books in biology, no. 1.*

A Account of the results of some modern work on the variation of blood groups and other factors in human populations, together with discussion on the bearing of such data on the evolution of man.

MEDAWAR, P. B. 286
The future of man: the BBC Reith Lectures 1959. Methuen, 1960. 128 pp., 10*s* 6*d*.
A Provocative and informative, these lectures throw light on how a biologist thinks.

58 BOTANY

HARRISON, S. G. 287
Garden shrubs and trees; key to the genera by R. D. Meikle, colour illus. by A. V. Webster, text illus. by E. Petts. Eyre & Spottiswoode, 1960. 318pp., illus., plates, bibliog. 25*s*. *Kew series, ed. by R. D. Meikle, no. 4.*
A For general readers who want to learn more about the botany of trees and shrubs than is given in most popular gardening books.

PORTER, C. L. 288
Taxonomy of flowering plants; drawings by E. L. Gillespie. San Francisco, London, Freeman, 1959 [London 1960]. xii,452pp., illus., plate, tables, diagrs., bibliogs. $6.75; 44*s*. *Series of biology texts, ed. by G. W. Beadle and others.*
B Simplified account of basic principles, with illustrated descriptions of flowering plants representative of North American flora.

TAYLOR, P. 289
British ferns and mosses; colour and text illus. by A. V. Webster. Eyre & Spottiswoode, 1960. 231pp., illus., plates, bibliog. 25*s*. *Kew series, ed. by R. D. Meikle, no. 5.*
A Ferns, pp. 1–176; mosses, pp. 177–217. For beginners.

6 APPLIED SCIENCES

61 MEDICAL SCIENCES

SHUTTLEWORTH, A. C. *and* SMYTHE, R. H. 290
Clinical veterinary surgery; vol. 2, operative procedure; illus. by A. C. Shuttleworth. Crosby Lockwood, 1960. viii,398pp., illus., diagrs., bibliogs. 42*s*.
B Concise practical guide to small and large animal surgery, for practitioners and students. Up to date with good illustrations.

62 ENGINEERING

620.1 Materials testing

JASTRZEBSKI, Z. B. 291
Nature and properties of engineering materials. N.Y., Wiley; London, C & H, 1960. xvii,571pp., illus., tables, diagrs., bibliogs. $11; 88*s*.
C Advanced textbook particularly valuable on the metallurgical side.

STANFORD, E. G. *and* FEARON, J. H., *eds* 292
Progress in non-destructive testing; vol. 2. Heywood, 1960. vii,250pp., plates, tables, diagrs., bibliogs. 55*s*.
C Fundamental information is provided in a series of papers of very high standard.

621.3 Electrical engineering

CLASON, W. E., *comp.* 293
Elsevier's dictionary of amplification, modulation, reception and transmission; in six languages: English/American, French, Spanish, Italian, Dutch, and German, comp. and arr. on an English alphabetical base by W. E. Clason. Amsterdam, London, [etc.], Elsevier, 1960. 62.50 *fl*; 120*s*.
D 2924 terms. English term followed by English definition and equivalents in other languages arranged in order of title across double page. Indexes in five languages numbered with reference to English table. Distributed in English language area by Van Nostrand.

HOFFMAN, W. C., *ed.* 294
Statistical methods in radio wave propagation: proceedings of a symposium held at the University of California, Los Angeles, June 18–20, 1958. London, [etc.], N.Y., Paris, Pergamon P., 1960. xiii,334pp., plates, tables, diagrs., bibliogs. 90*s*; $14.
C Twenty-three original papers, presenting new and powerful tools to the radio research worker and problems of interest and significance to the statistician.

KIRCHMAYER, L. K. 295
Economic control of interconnected systems. N.Y., Wiley; London, C & H, [1960]. x,207pp., illus., tables, diagrs., bibliogs. $12.50; 100*s*. *General Electric series.*
C Proposes mathematical methods with use of computers for determining optimum conditions in operation of interconnected power supply systems. For power distribution engineers.

OUDET, L. 296
Radar and collision: a handbook for mariners, with a foreword by F. J. Wylie, [tr. from the French by R. Hague]. Hollis & Carter, [1960]. xii,89pp., diagrs. 15*s*.
A–B Useful and readable analysis of problems encountered daily by users of radar in ships.

297
PROCEEDINGS of an international symposium on the theory of switching, 2–5 April 1957; parts 1 and 2. Cambridge (Mass.), Harvard U.P.; [London, OUP], 1959. xl,305pp.;vii,345pp., illus., tables, diagrs., bibliogs. $15; 120*s*. *Annals of the Computation Laboratory of Harvard University, vol. XXX.*
C Thirty-nine important papers on abstract models, contact networks, magnetic and transistor logic, switching systems, and new switches connected with communication apparatus and systems and with computers. Largely mathematical.

RIDER, J. F. *and* PRENSKY, S. D. 298
How to use meters. 2nd ed. rev. N.Y., Rider, 1960. [6],210pp., illus., tables, diagrs., bibliog. $3.50. *Rider publication no. 144.*
B Concise well-illustrated volume dealing with principles, construction, and use of meters of all types.

THOMAS, A. G. *and* RATA, P. J. H. 299
Aluminium busbar: a comprehensive handbook on the design, construction and installation of aluminium and aluminium alloy busbar. Hutchinson for Northern Aluminium Co., 1960. 105pp., illus., tables, diagrs., bibliog. 21*s*.
B Comprehensive book for the practical designer.

TURNER, R. P. 300
How to use grid-dip oscillators. N.Y., Rider, 1960. viii,103pp., illus., diagrs. $2.50. *Rider publication no. 245.*
B Clear indication of the principles, method of construction, and uses for electronic measurements of this specialized form of oscillator.

623 Military and Naval engineering

FEODOSIEV, V. I. *and* SINIAREV, G. B. 301
Introduction to rocket technology, tr. from the Russian by S. N. Samburoff. N.Y., London, Academic P., 1959. x,344pp., illus., tables, diagrs., bibliog. $9.50; 133*s*.
C

624 Civil engineering

ROGERS, G. L. 302
An introduction to the dynamics of framed structures. N.Y., Wiley; London, C & H, 1959. xv,355pp., illus., plate, tables, diagrs., bibliog. $10.25; 82*s*.
C Theory of structural dynamics as it applies to the special problems of beams and rigid frames.

THORNLEY, J. H. 303
Foundation design and practice: an economic view. N.Y., Columbia U.P.; London, OUP, 1959. xi,298pp., diagrs. $15; 120*s*.
B In six parts: preliminary considerations, foundation types (with special reference to piles), laboratory and field testing specifications and contracts, building Codes (American), and basic design.

629 Transport engineering

EHRICKE, K. A. 304
Space flight; vol. 1, environment and celestial mechanics. Princeton (N.J.), [etc.], London, Van Nostrand, [1960]. xiii,513pp., illus., tables, diagrs., bibliog. $14.50; 109*s*. *Principles of guided missile design series, ed. by G. Merrill.*
C First of three volumes.

GIBBS & COX, INC. 305
Marine design manual for fiberglass reinforced plastics, sponsored by Owens-Corning Fiberglass Corporation. N.Y., [etc.], London, McG-H, 1960. [392]pp., illus., tables, diagrs., bibliog. $15; 116*s* 6*d*.
C First book dealing specifically with this subject. Various paging.

KING-HELE, D. 306
Satellites and scientific research. R & KP, 1960. xii,180pp., plates, tables, diagrs., bibliog. 21*s*.
A Describes use of satellites as research tools and discoveries which have been made with them. For general readers with some scientific or technical background.

MOTOR SHIP 307
Reference book, comp. by the staff of *The Motor ship*. 20th ed. Temple P., 1960. vii,231pp., illus., plates, tables, diagrs., bibliog. 52*s* 6*d*.
D Previous edition 1950. Entirely new format. Plans and folding plates of recent ships and those under construction.

66 CHEMICAL TECHNOLOGY

BAILEY, A. R. 308
A text-book of metallurgy. 2nd ed. London, Macmillan; N.Y., St Martin's P., 1960. x,561pp., illus., tables, diagrs., bibliogs. 30*s*.; $8.
B Considerably revised edition of standard introductory text of physical and process metallurgy. New appendix on preparation of metallurgical reports.

DUECKER, W. W. *and* WEST, J. R., *eds* 309
The manufacture of sulfuric acid. N.Y., Reinhold; London, C & H, [1960]. viii,515pp., illus., tables, diagrs., bibliogs. $12.50; 100*s*. *American Chemical Society monograph series.*
B–C Covers all aspects of sulphuric acid technology, primarily from U.S. point of view. Full documentation.

HAUSNER, H. H. *and* SCHUMAR, J. F., *eds* 310
Nuclear fuel elements. N.Y., Reinhold; London, C & H, 1960. xi,409pp., illus., tables, diagrs., bibliogs. $12.50; 100*s*.
B–C Twenty authoritative papers presented at the first international symposium on nuclear fuel elements, held at Columbia University in January 1959.

ZUIDEMA, H. H. 311
Performance of lubricating oils. 2nd ed. N.Y., Reinhold; London, C & H, 1959. xi,205pp., illus., tables, diagrs., bibliogs. $7; 56*s*. *American Chemical Society monograph series.*

C Fully revised edition of standard reference book first published 1951.

67/68 MANUFACTURES

HEARLE, J. W. S. *and* PETERS, R. H., *eds* 312
Moisture in textiles. Manchester, Textile Institute; London, Butterworths Scientific; [N.Y. Textile Book Publishers], 1960. ix,203pp., tables, diagrs., bibliogs. 40*s*; $6.50.

B–C Based on course of lectures held at Manchester College of Science and Technology. Deals with sorption and diffusion and effects on properties.

MORTON, M., *ed.* 313
Introduction to rubber technology. N.Y., Reinhold; London, C & H, 1960. v,547pp., illus., tables, diagrs., bibliog. $10; 80*s*.

B Compilation of selected lectures, covering both natural and synthetic rubbers. Sponsored by the American Chemical Society.

681 Precision mechanisms

BURTON, A. J. *and* MILLS, R. G. 314
Electronic computers and their business applications, with a preface by A. J. Barnard. Benn, 1960. xviii,19–325pp., plates, tables, diagrs. 45*s*.

B Full account of commercial applications of computers, including equipment, programming, and staff.

GEARY, P. J. 315
Torsion devices: a survey of their design, construction, and use. British Scientific Instrument Research Association, 1960. xii,144pp., table, diagrs., bibliog. 21*s* (23*s* 6*d* abroad). *A survey of instrument parts, no. 3. B.S.I.R.A. research report R 249.*

C Invaluable to instrument designers and engineers called upon to design small mechanisms or laboratory equipment.

NEEDHAM, J. *and others* 316
Heavenly clockwork: the great astronomical clocks of medieval China, by J. Needham, Wang Ling, and D. J. de S. Price. Cambridge, CUP in association with the Antiquarian Horological Society, 1960. xv,254pp., illus., plates, tables, diagrs., bibliog. 65*s*. *Antiquarian Horological Society monograph no. 1.*

A Reveals for the first time the existence of six centuries of mechanical clockwork before the first mechanical escapement clocks appeared in the western world about A.D. 1300.

69 BUILDING

HARRIS, N. C. 317
Modern air conditioning practice. N.Y., [etc.], London, McG-H, 1959. ix, 363pp., illus., plates, tables, diagrs. $6.75; 52*s* 6*d*.

B General review of theory and practice for students and non-specialists.

7 FINE ARTS

PICKUP, F. *and* PARKER, M. A. 318
Engineering drawing with worked examples; vol. 1. Hutchinson, 1960. [5], 183pp., tables, diagrs. 21*s*. [*Hutchinson's worked examples series.*]

B Covers first year of Ordinary National Certificate course. Minimum of written matter and excellent worked examples.

Publishers

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A & U	Allen & Unwin
B & S	Bailey & Swinfen
C & H	Chapman and Hall
CUP	Cambridge University Press
EUP	English Universities Press
HMSO	Her Majesty's Stationery Office
McG-H	McGraw-Hill
O & B	Oliver and Boyd
OUP	Oxford University Press
R & KP	Routledge & Kegan Paul
ULP	University of London Press

Subject Index

REFERENCE IS TO UDC NUMBER

Applied sciences 6
Astronomy 52

Biology 57
Botany 58
Building 69

Chemical technology 66
Chemistry 54
Civil engineering 624

Electrical engineering 621.3
Engineering 62

Fine Arts 7

Geology 55

Manufactures 67/68
Materials testing 620.1
Mathematics 51
Medical sciences 61

Military and naval engineering 623

Natural sciences 5
Nuclear physics 539.1

Philology 4
Physics 53
Precision mechanisms 681

Transport engineering 629

Author or Title Index

Bailey, A. R., 308
Barton, D. H. R., *ed.* 274
Batchelor, G. K., *ed.* 269
Beadle, G. W., 288
Beer, *Sir* G. de, 256
Belcher, R., 280
Birnbaum, Z. W., *ed.* 261
Bochner, S., 258
Born, M., 270
Brown, S. C., 271
Browning, E., *ed.* 281
Burton, A. J., 314

Chace, W. G., *ed.* 272
Clason, W. E., *comp.* 293
Crew, M. D., 276
Cross, A. D., 273

de Beer, *Sir* G., 256
Doering, W., *ed.* 274
Duecker, W. W., *ed.* 309
Dunn, L. C., 285

Ehricke, K. A., 304
Elsevier Publishing Co., 293
Emde, F., 259

Fearon, J. H., *ed.* 292
Feodosiev, V. I., 301

Geary, P. J., 315
Gibbs & Cox, Inc., 305
Gillespie, E. L., *ill.* 288
Guest, M., *tr.* 268
Gunning, R. C., *ed.* 258
Gutenberg, B., 283

Hague, R., *tr.* 296
Halmos, P. R., *ed.* 262
Harris, N. C., 317
Harrison, S. G., 287
Hausner, H. H., *ed.* 310
Hearle, J. W. S., *ed.* 312
Hele, D. King-, 306
Hoffman, W. C., *ed.* 294
Hutchings, E., jr, *ed.* 257

Jackman, L. M., 274
Jastrzebski, Z. B., 291
Johnson, P. O., 260

Kapp, O. K., 267
Karlin, S., 261
Kelley, J. L., *ed.* 262
Kemeny, J. G., 262
King-Hele, D., 306
Kirchmayer, L. K., 295
Kopal, Z., *rev.* 268
Kramish, A., 279

Lehmann, E. L., 263
Ling, Wang, 316

Maltzoff, N., 255
Medawar, P. B., 286
Meikle, R. D., 287, *ed.* 289
Merrill, G., *ed.* 304
Mieghem, J. van, 283
Mills, R. G., 314
Milne-Thomson, L. M., 275
Moore, H. K., *ed.* 272
Morgan, J. R., *ed.* 266
Morgan, R. S., 284
Morton, M., *ed.* 313
Motor Ship, 307
Mott, N. F., *ed.* 278

Needham, J., 316
Nutten, A. J., 280

Oudet, L., 296

Parker, M. A., 318
Pattison, F. L. M., 281
Peters, R. H., *ed.* 312
Petts, E., *ill.* 287
Pickup, F., 318
Pollard, H., *tr.* 258
Porter, C. L., 288
Prensky, S. D., 298
Price, D. J. de S., 316
Proceedings of an international symposium on the theory of switching, 297
Proceedings of the international congress of mathematicians, 264
Proceedings of the international symposium on microchemistry, 282

Rao, M. S., 260
Rata, P. J. H., 299
Richards, E. W. T., 276
Rider, J. F., 298
Robinson, E. A., 265
Rogers, G. L., 302
Rudaux, L., 268

Samburoff, S. N., *tr.* 301
Schumar, J. F., *ed.* 310
Shuttleworth, A. C., 290
Sidgwick, J. B., *tr.* 268
Siniarev, G. B., 301
Smythe, R. H., 290
Snell, J. L., 262
Spring, K. H., 277
Stamp, L. D., *ed.* 284
Stanford, E. G., *ed.* 292

Taylor, *Sir* G. I., 269
Taylor, P., 289
Tenenbaum, M., *tr.* 258
Thomas, A. G., 299
Thomson, L. M. Milne-, 275
Thornley, J. H., 303
Todd, J. A., *ed.* 264
Turner, R. P., 300

van Mieghem, J., *ed.* 283
Vaucouleurs, G., 268

Wang Ling, 316
Webster, A. V., *ill.* 287, 289
West, J. R., *ed.* 309
Westwater, F. L., 266
Wolf, E., 270
Wooldridge, S. W., 284
Worsnop, B. L., *ed.* 277

Ziman, J. M., 278
Zuidema, H. H., 311

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07 NEWSPAPERS. JOURNALS

PRICE, W. C. 319

The literature of journalism: an annotated bibliography. Minneapolis, University of Minnesota P., 1959; [London, OUP, 1960]. xv,489pp. $10; 80*s*.

D Over 3,000 published books in English language, nearly half in historical and biographical categories. Journalism interpreted to cover radio and television journalism, advertising, and public relations.

3 SOCIAL SCIENCES

GIBSON, Q. 320

The logic of social enquiry. R & KP, 1960. x,214pp. 24*s*. *International library of sociology and social reconstruction, ed. by W. J. H. Sprott.*

B Scientific procedure and social inquiry.

33 ECONOMICS

DEBREU, G. 321

Theory of value: an axiomatic analysis of economic equilibrium. N.Y., Wiley; London, C & H, 1960. xii,114pp., diagrs., bibliog. $4.75; 38*s*. *Cowles Foundation for Research in Economics. Monographs, no. 17.*

C

ILES, D. J. *and* TUCKER, C. A. 322

Problems of full employment. R & KP, 1960. x,265pp., tables, diagrs. 20*s*.

A

37 EDUCATION

BARON, G. 323

A bibliographical guide to the English educational system. 2nd ed. London, Athlone P., 1960. 97pp. 12*s* 6*d*.

D New material added and out-of-date books deleted.

BYRNE, H. J. 324

Primary teacher training. OUP, 1960. [7],120pp., illus., tables, diagrs. 7*s* 6*d*.

A Practical suggestions for training teachers and for running a training college.

CHETWYND, H. R. 325

Comprehensive school: the story of Woodberry Down. London, R & KP, 1960. vii,168pp., plates. 18*s*.

A The foundation and first four years of first L.C.C. mixed comprehensive school, by its headmistress.

SILBERSTON, D. 326

Residence and technical education: a report on residence as a liberal element in technical education, prepared by D. Silberston under the guidance of a committee whose members were nominated by the Association of Technical Institutions, the Association of Principals of Technical Institutions, the Association of Teachers in Technical Institutions, the National Institute of Adult Education. Parrish, 1960. 155pp., tables, bibliog. 16*s*.

A

5 NATURAL SCIENCES

HARRÉ, R. 327

An introduction to the logic of the sciences. London, Macmillan; N.Y., St Martin's P., 1960. viii,180pp., tables, diagrs., bibliogs. 21*s*.

A–B Introductory textbook discussing logic of the development of scientific laws and theories, with examples drawn from wide range of sciences.

52 ASTRONOMY

BEER, A., *ed.* 328

Vistas in astronomy; vol. 3: part 1, dynamics, instruments, geophysics, solar system; part 2, stellar astronomy, photometry, spectroscopy, stellar evolution, galaxies, cosmology. London, [etc.], N.Y., Pergamon P., 1960. vii,345pp., illus., plate, tables, diagrs., bibliogs. 120*s*; $18.50. *Special supplement no. 7 to the* Journal of atmospheric and terrestrial physics.

C Review of historical development, present research, and probable future developments in wide range of subjects.

U.S.S.R. ACADEMY OF SCIENCES 329

The other side of the moon, tr. from the Russian by J. B. Sykes. Oxford, [etc.], N.Y., Pergamon P., 1960. 36pp., illus., table, diagrs. 10*s* 6*d*; $2.50.

A Preliminary studies of the photographs obtained with the third Russian artificial satellite.

WILKINS, H. P. 330

Moon maps: with a chart showing the other side of the moon based upon the Soviet photographs. Faber, 1960. 38,xxviipp., diagrs. 30*s*.

D Detailed maps on a scale of 55·4 miles to the inch, conveniently bound on rings for use at the telescope. Features are listed alphabetically.

53 PHYSICS

BRILLOUIN, L. 331

Wave propagation and group velocity. N.Y., London, Academic P., 1960. xi,154pp., diagrs., bibliog. $6; 48*s*. *Pure and applied physics series, ed. by H. S. W. Massey; vol. 8.*

C

BRUGES, E. A. 332

Available energy and the second law analysis. London, Butterworths Scientific; N.Y., Academic P., 1959. viii,124pp., tables, diagrs., bibliog. 25*s*; $5.50.

B Discusses concept of available energy and the first and second laws of thermodynamics, and gives account of developments and use of concept.

KINGERY, W. D., *ed.* 333

Kinetics of high-temperature processes. Cambridge (Mass.), Technology P.; N.Y., Wiley; London, C & H, 1959. 326pp., illus. $13.50; 108*s*. *Technology Press books in science and engineering.*

C

LIN, C. C., *ed.* 334

Turbulent flows and heat transfer. London, OUP; [Princeton (N.J.), Princeton U.P.], 1959 [i.e. 1960]. xv,549pp., plates, diagrs., bibliogs. 5 *gns*; $15. *High speed aerodynamics and jet propulsion; vol. 5, ed. by T. von Kármán and others.*

C Authoritative collective work on fundamental aspects and theoretical tools of high-speed aerodynamics and jet propulsion.

335

RARIFIED gas dynamics: proceedings of the first international symposium held at Nice, ed. by F. M. Devienne. London, [etc.], N.Y., Paris, Pergamon P., 1960. vii,442pp., plates, tables, diagrs., bibliogs. 120*s*; $17.50. *International series on aeronautical sciences and space flight, chairmen T. von Kármán and H. L. Dryden. Division 9: symposia; vol. 3.*

C In part descriptive of apparatus and technique, in part highly theoretical and mathematical.

WILKINSON, W. L. 336

Non-Newtonian fluids: fluid mechanics, mixing and heat transfer. London, [etc.], N.Y., Pergamon P., 1960. xiv,138pp., plates, tables, diagrs., bibliog. 37*s* 6*d*; $6.50. *International series of monographs on chemical engineering; gen. eds P. V. Danckwerts and R. F. Baddour; vol. 1.*

B Survey of physical properties of non-Newtonian fluids, for engineers familiar with mechanics of Newtonian fluids. Gives quantitative design procedures, based on measured properties, for calculating flow in conduits, extrusion, mixing, and heat transfer.

539.1 Nuclear physics

BRAND, J. C. D. *and* SPEAKMAN, J. C. 337

Molecular structure: the physical approach. Edward Arnold, 1960. viii,300pp., plate, tables, diagrs., bibliogs. 30*s*.

B For Honours students. Topics include symmetry and crystal structure analysis, wave mechanics, rotation and vibration of molecules, Raman effect, nuclear resonance spectra, electron diffraction.

338

HEALTH physics in nuclear installations; symposium organized at the Danish Atomic Energy Centre at Risø, 25–28 May 1959, by OEEC-ENEA-OECE and the Danish Atomic Energy Commission. Paris, Organisation for European Economic Co-operation, European Nuclear Energy Agency, [London, HMSO, 1960]. 410,[4]pp., illus., tables, diagrs., bibliogs. 37*s* 6*d*.

C Over thirty papers covering wide range of topics. Discussions and many references are included. Numerous tables of useful data.

54 CHEMISTRY

BREWSTER, R. Q. *and others* 339

Unitized experiments in organic chemistry, by R. Q. Brewster, C. A. Vanderwerf and W. E. McEwen. Princeton (N.J.), Toronto, London, [etc.], Van Nostrand, [1960]. xiv,200pp., tables, diagrs. $5.50; 41*s* 6*d*.

B Compiled by professors of chemistry in the University of Kansas, this may not be suitable as sole textbook for British students but could serve as useful basis for consideration of teaching methods by British lecturers.

CHARLESBURY, A. 340

Atomic radiation and polymers. Oxford, [etc.], Paris, Pergamon P., 1960. xiii, 556pp., illus., plates, tables, diagrs., bibliogs. 110*s*. *International series of monographs on radiation effects in materials, gen. ed. A. Charlesbury; vol. 1.*

B Deals primarily with polymerization by high energy radiation and effects of latter on polymers; wide range of related topics also discussed. For scientists and technologists.

GUY, J. B. *and* WOODS, S. D. 341

A concise organic chemistry. Blackie, 1960. viii,500pp., tables, diagrs. 27*s* 6*d*.

B Aims to encourage appreciation of organic chemistry theory and reactions rather than the memorizing of facts. For A level and 1st M.B. students.

KATRITSKY, A. R. *and* LAGOWSKI, J. M. 342
Heterocyclic chemistry, with a foreword by Sir A. Todd. London, Methuen; N.Y., Wiley, 1960. 274pp., tables, diagrs., bibliog. 21*s*.

B Highly condensed text for Honours students, covering complete field with special emphasis on structure, synthesis, and chemical reactions, set out in systematic manner.

SHIREBY, D. 343
A digest of elementary chemical thermodynamics. Pitman, 1959. xi,140pp., tables, diagrs., bibliog. 20*s*.

B Sound text for S level and first-year university students. Simple mathematical treatment and many worked examples.

55 GEOLOGY

CHAPMAN, V. J. 344
Salt marshes and salt deserts of the world. London, Leonard Hill; N.Y., Interscience, 1960. xvi,392pp., illus., plates, tables, diagrs., bibliogs. 95*s*. *Plant science monographs, ed. by N. Polunin.*

B Expert, clearly written description of salt marshes and their vegetation, emphasizing Britain and similar climatic areas.

SWINEFORD, A., *ed.* 345
Clays and clay minerals: proceedings of the seventh national conference on clays and clay minerals, sponsored by Committee on Clay Minerals of the National Academy of Sciences–National Research Council, Washington, D.C., October 20–23, 1958. London, [etc.], N.Y., Pergamon P., 1960. ix,369pp., plates, tables, diagrs. 60*s*; $8.50. *International series of monographs on earth sciences, ed. by E. Ingerson; vol. 5.*

C Topics include effect of salt water on clay minerals, studies of American clay deposits, and use of X-rays for determination of clay minerals. Well documented.

6 APPLIED SCIENCES

61 MEDICAL SCIENCES

ASHBY, W. R. 346
Design for a brain: the origin of adaptive behaviour. 2nd ed. rev. C & H, 1960. ix,286pp., illus., tables, diagrs., bibliog. 42*s*.

C First published 1952, now extensively revised. Attempts a strictly logical demonstration that the brain could be a machine, of a defined sort, and still behave adaptively.

JANSSEN, P. A. J. 347
Synthetic analgesics; part 1, diphenylpropylamines. Oxford, [etc.], N.Y., Pergamon P., 1960. vii,183pp., tables, diagrs., bibliog. 45*s*; $7.50. *International series of monographs on organic chemistry, ed. by D. H. R. Barton and W. Doering; vol. 3.*

C Review of synthesis, physical and chemical properties, and analgesic activity of diphenylpropylamines. Reference work for research workers.

62 ENGINEERING

620.1 Materials testing

ORGANISATION FOR EUROPEAN ECONOMIC CO-OPERATION. Mission 388 348
Metals testing in the United States: a survey of destructive and non-destructive methods. Paris, OEEC, European Productivity Agency; [London, HMSO], 1959. 209pp., illus., tables, diagrs., bibliog. 14*s* 6*d*.

C

621 Mechanical engineering

BOOTH, A. D. 349

Progress in automation; vol. 1. London, Butterworths Scientific; N.Y., Academic P., 1960. viii,231pp., illus., tables, diagrs., bibliogs. 42*s*; $8.50.

B Review, by experts for non-experts, of developments in industrial control techniques in the United Kingdom.

CAMM, F. J. 350

Workshop calculations, tables and formulae: for draughtsmen, engineers, fitters, turners, mechanics, patternmakers, erectors, foundrymen, millwrights and technical students. 13th ed. Newnes, 1959. 195pp., illus., tables, diagrs. 10*s* 6*d*.

D Ideal everyday handbook for workers in engineering, with complete tables of the new unified screw thread.

SCHWEITZER, G. 351

Basics of fractional horsepower motors and repair. N.Y., Rider; London, C & H, [1960]. [6],168pp., illus., tables, diagrs. $3.90.

B Working explanation of principles of operation of various f.h.p. motors and basic procedures for servicing and maintenance.

TOWN, H. C. 352

Cutting tools, jigs and fixtures. Odhams, 1960. 247pp., illus., tables, diagrs. 25*s*.

B–C Textbook on choice and design of tools, jigs, and fixtures for production in the engineering workshop.

621.3 Electrical engineering

COOKE-YARBOROUGH, E. H. 353

An introduction to transistor circuits. 2nd ed. Edinburgh, London, O & B in collaboration with the United Kingdom Atomic Energy Authority; N.Y., Interscience, 1960. xii,158pp., tables, diagrs., bibliogs. 18*s*; $2.75.

B Revised edition discussing linear and non-linear properties of transistors and their use in amplifier and pulse circuits and electronic devices. For students and experimenters.

KING, R. W. P. *and* TAI TSUN WU 354

The scattering and diffraction of waves. Cambridge (Mass.), Harvard U.P.; London, OUP, 1959. xvii,218pp., diagrs. $6; 32*s* 6*d*. *Harvard monographs in applied science, ed. by F. V. Hunt and others.*

C Summary of work done at Harvard on electromagnetic wave reflections from complex shaped surfaces, covering theoretical and experimental work. For research workers on electromagnetic radiation.

SMITH, S. P. 355

Problems in electrical engineering (power engineering and electronics) with answers. 7th ed., ed. by N. N. P. Smith. Constable, 1960. xviii,370pp., tables, diagrs. 20*s*.

B Now contains 1981 problems, mostly of practical nature. For students in tuition classes and for self-tuition.

TERRAS, J. A. 356

The practical use of radio aids for pilots. Pitman, 1960. ix,67pp., diagrs. 12*s* 6*d*.

B Practical instruction book, for student pilots, on more commonplace radio aids to aircraft navigation.

622 Mining

CRAFT, B. C. *and* HAWKINS, M. F. 357

Applied petroleum reservoir engineering. London, Constable; [Englewood Cliffs (N.J.), Prentice-Hall], [1960]. ix,437pp., tables, diagrs., bibliogs. 62*s* 6*d*; $12.

B Mathematical treatment of the problems involved, relating theory to practical production methods in endeavour to obtain maximum ultimate oil and gas recovery.

624 Civil engineering

CAPPER, P. L. *and* CASSIE, W. F. 358

The mechanics of engineering soils. 3rd ed. Spon, 1960. xviii,19–315pp., tables, diagrs., bibliog. 30*s*.

B Revised and extended to take account of modern developments in application of soil mechanics. First edition 1949.

LEONTOVITCH, V. 359

Frames and arches: condensed solutions for structural analysis. N.Y., London, McG-H, 1959. xix,472pp., illus. $20; 155*s*. *Engineering societies monographs*.

C For frames and arches with members of constant and variable cross-section.

628 Public health engineering

MITCHELL, G. E. 360

Sanitation, drainage, and water supply, rev. by S. E. Thrower. 6th ed. Newnes, 1960. [6],198pp., tables, diagrs. 30*s*.

B Handbook on current practice, including damp prevention, ventilation, central heating and hot-water supply.

629 Transport engineering

STEEDS, W. 361

Mechanics of road vehicles: a textbook for students, draughtsmen and automobile engineers. Iliffe, 1960. viii,287pp., tables, diagrs., bibliogs. 35*s*.

C Mathematical analysis of forces acting on a road vehicle and its component parts, and mathematical investigation of behaviour of vehicle in motion. For advanced engineering students.

STEKHOVEN, G. S., *comp*. 362

Elsevier's automobile dictionary in eight languages: English/American, French, Italian, Spanish, Portuguese, German, Russian, Japanese, comp. and arr. on an English alphabetical base by G. S. Stekhoven, with a preface by W. P. Ricart. Amsterdam, London, [etc.], Elsevier, 1960. [8],946pp., bibliog. 77.50*fl*; 7 *gns*.

D Over 5,000 English terms, with brief definitions where necessary, followed by equivalents in other languages across double page. Thumb-indexes to foreign languages, numbered with reference to English table. Distributed in English language area by Van Nostrand.

65 COMMERCE. ORGANIZATION. COMMUNICATIONS

CHESKIN, L. 363

Why people buy: motivation research and its successful application, with an introduction by H. D. Hadley. Business Publs in association with Batsford, 1960; [N.Y., Liveright, 1959]. 348pp., tables. 35*s*; $5.

C Review by prominent American market research consultant, with special reference to his own personal views and methods. Should interest executives in U.K., particularly those not familiar with this approach.

657 Accountancy

BATTY, J. 364

Standard costing. Macdonald & Evans, 1960. xii,328pp., tables, diagrs. 25*s*.

B Textbook intended primarily for accountancy students, with good balance between theory and practice.

THORNTON, N. 365

Retail budgetary control and costing: an introduction. Business Publs in association with Batsford, 1960. x,166pp., tables, diagrs., bibliog. 35*s*.

B General introduction to the use of budgetary control and costing in multiple shop enterprises.

66 CHEMICAL TECHNOLOGY

AITCHISON, L. 366

A history of metals; vols 1 and 2. Macdonald & Evans, 1960. xxi,304; xvii, 305–647pp., illus., tables, diagrs., bibliog. 2 v. 8 *gns*.

A Outstanding work on history of metals and their position in relation to man's culture from the earliest times. For metallurgists and all interested in history.

CHALMERS, B. 367

Physical metallurgy. N.Y., Wiley; London, C & H, 1960. xviii,468pp., illus., tables, diagrs., bibliogs. $12.50; 100*s*. *Wiley series on the science and technology of materials, ed. by J. H. Hollomon*

B–C Introductory textbook on basis of fundamental atomic considerations and crystal structure. Theoretical concepts of structure, properties, and change of state are scientifically linked with observation.

DARWIN, G. E. *and* BUDDERY, J. H. 368

Beryllium. London, Butterworths Scientific; [N.Y., Academic P.], 1960. ix, 392pp., illus., tables, diagrs., bibliogs. 70*s*; $13.50. *Metallurgy of the rarer metals, gen. ed. H. M. Finniston, no. 7.*

C References and data on beryllium and beryllia for those engaged in study and development of these materials for nuclear and aeronautical purposes.

HURD, J. 369

Adhesives guide. British Scientific Instrument Research Association, 1959. v, 140pp., tables, bibliog. 20*s* (22*s* 6*d* abroad). *B.S.I.R.A. research report M.39.*

B Useful guide to properties and uses of available adhesives, with buyer's guide.

INSTITUTE OF PETROLEUM 370

IP standards for petroleum and its products. 19th ed. Institute of Petroleum, 1960. 2 v.

C–D Part 1, methods for analysis and testing. xxvi,783pp., illus., plates, tables, diagrs. 2 *gns*. Part 4, methods for sampling. ix,44pp., tables, diagrs. 10*s*.

KUTATELADZE, S. S. *and others* 371

Liquid-metal heat transfer media: supplement no. 2 of the Soviet journal of atomic energy *Atomnaia energiia*, by S. S. Kutateladze, V. M. Borishanskii, I. I. Novikov and O. S. Tedynskii, tr. from the Russian. Moscow, Atomic P., 1958; N.Y., Consultants Bureau, 1959. [v],149pp., illus., tables, diagrs. $21.50.

C Contains mass of Russian data, thus forming valuable supplement to the American *Liquid metals handbook*, which covers much the same ground.

LARIAN, M. G. 372

Fundamentals of chemical operations. London, Constable, [1960]; [Englewood Cliffs (N.J.), Prentice-Hall], 1959. xi,644pp., illus., tables, diagrs., bibliogs. 62*s* 6*d*.

B Sound textbook suitable for undergraduate chemical engineers, by professor at Michigan State University.

PARR, N. L. 373
Zone refining and allied techniques, with a foreword by E. J. Vaughan. Newnes, 1960. xvi,184pp., plates, tables, diagrs., bibliogs. 40*s*. *Newnes practical science books, ed. by J. G. Cook.*

B Explains basic concepts of the process and includes many illustrations of apparatus involved. Practical knowledge of high vacuum technique would be an advantage to the reader.

POUCHER, W. A. 374
Perfumes, cosmetics and soaps: with special reference to synthetics; vol. 3, being a treatise on modern cosmetics. 7th ed. rev. C & H, 1959. xi,260pp., plates, tables. 45*s*.

C Final volume of standard reference work of value to all engaged in technical side of the industry.

SOCIETY OF CHEMICAL INDUSTRY. Food Group 375
Texture in foods: comprising papers read at a symposium organised by the Food Group held in London, October 13–14, 1958. Society of Chemical Industry, 1960. iv,184pp., illus., tables, diagrs., bibliog. 30*s*. *Monographs, no. 7.*
C

WESTWOOD, W. *and* MAYER, A. 376
Chemical analysis of cast iron and foundry materials. 2nd ed., rev. by W. E. Clarke and H. Green, foreword by E. Gregory. A & U, 1960. 586pp., tables, diagrs., bibliog. 63*s*.

B Covers wide field of analysis and should prove valuable to foundry chemists and metallurgical students. Introduction of up-to-date methods such as gravimetric sulphur method of Bagshawe and Pill will be welcomed by most analysts.

67/68 MANUFACTURES

MARKS, S. S. 377
Fairchild's dictionary of textiles. N.Y., Fairchild, 1959. 627pp. $25.

D Based on Harmuth's dictionary of textiles, including standardized terms, and providing accurate guide to American usage. 12,000 terms.

681 Precision mechanisms

IVALL, T. E. 378
Electronic computers: principles and applications. 2nd ed. London, Iliffe; N.Y., Philosophical Library, 1960. viii,263pp., plates, diagrs. 25*s*.

B Non-mathematical introduction to analogue and digital computers, including guidance on their applications and programming. Complete revision of 1956 edition.

SAY, M. G. *and others, eds* 379
Analogue and digital computers, ed. by M. G. Say, A. C. D. Haley, and W. E. Scott. Newnes, 1960. viii,308pp., plates, tables, diagrs., bibliogs. 50*s*.

C Comprehensive treatment by seven specialists of the design and operation of electronic computers, with details of electric circuits. Applications in commerce are not considered.

69 BUILDING

VAN MANSUM, C. J., *comp.* 380
Elsevier's dictionary of building construction in four languages: English/American, French, Dutch, and German, comp. and arr. on an English alphabetical base by C. J. van Mansum. Amsterdam, London, [etc.], Elsevier, 1959. 471pp. 45 *fl*; 85*s*; $15.75.

D Distributed in English language area by Van Nostrand.

Publishers

THE FOLLOWING ABBREVIATIONS ARE USED IN ASLIB BOOK LIST

A & U	Allen & Unwin
B & S	Bailey & Swinfen
C & H	Chapman and Hall
CUP	Cambridge University Press
EUP	English Universities Press
HMSO	Her Majesty's Stationery Office
McG-H	McGraw-Hill
O & B	Oliver and Boyd
OUP	Oxford University Press
R & KP	Routledge & Kegan Paul
ULP	University of London Press

Subject Index

REFERENCE IS TO UDC NUMBER

Accountancy 657
Applied sciences 6
Astronomy 52

Building 69

Chemical technology 66
Chemistry 54
Civil engineering 624
Commerce, Organization, Communications 65

Economics 33
Education 37
Electrical engineering 621.3
Engineering 62

Geology 55

Manufactures 67/68
Materials testing 620.1
Mechanical engineering 621
Medical sciences 61
Mining 622

Natural sciences 5
Newspapers, Journals 07
Nuclear physics 539.1

Physics 53
Precision mechanisms 681
Public health engineering 628

Social sciences 3

Transport engineering 629

Author or Title Index

Aitchison, L., 366
Ashby, W. R., 346

Baddour, R. F., *ed.* 336
Baron, G., 323
Batty, J., 364
Beer, A., *ed.* 328
Booth, A. D., 349
Borishanskii, V. M., 371
Brand, J. C. D., 337
Brewster, R. Q., 339
Brillouin, L., 331
Bruges, E. A., 332
Buddery, J. H., 368
Byrne, H. J., 324

Camm, F. J., 350
Capper, P. L., 358
Cassie, W. F., 358
Chalmers, B., 367
Chapman, V. J., 344
Charlesbury, A., 340
Cheskin, L., 363
Chetwynd, H. R., 325
Clarke, W. E., *rev.* 376
Cook, J. G., *ed.* 373
Cooke-Yarborough, E. H., 353
Craft, B. C., 357

Danckwerts, P. V., *ed.* 336
Darwin, G. E., 368
Debreu, G., 321
Devienne, F. M., *ed.* 335
Dryden, H. L., *ed.* 335

Elsevier Publishing Co., 362, 380

Fairchild Publications, 377
Finniston, H. M., *ed.* 368

Gibson, Q., 320
Green, H., *rev.* 376
Guy, J. B., 341

Haley, A. C. D., *ed.* 379
Harré, R., 327
Hawkins, M. F., 357
Health physics in nuclear installations, 338
Hollomon, J. H., *ed.* 367
Hunt, F. V., *ed.* 354
Hurd, J., 369

Iles, D. J., 322
Ingerson, E., *ed.* 345
Institute of Petroleum, 370
Ivall, T. E., 378

Janssen, P. A. J., 347

Kármán, T. von, *ed.* 334–5
Katritsky, A. R., 342
King, R. W. P., 354
Kingery, W. D., *ed.* 333
Kutateladze, S. S., 371

Lagowski, J. M., 342
Larian, M. G., 372
Leontovitch, V., 359
Lin, C. C., *ed.* 334

McEwen, W. E., 339
Mansum, C. J. van, *comp.*, 380
Marks, S. S., 377
Massey, S. W., *ed.* 331
Mayer, A., 376
Mitchell, G. E., 360

National Academy of Sciences, 345
National Research Council, 345
Novikov, I. I., 371

Organisation for European Economic Co-operation, 348

Parr, N. L., 373
Polunin, N., *ed.* 344
Poucher, W. A., 374
Price, W. C., 319

Rarefied gas dynamics, 335

Say, M. G., *ed.* 379
Schweitzer, G., 351
Scott, W. E., *ed.* 379
Shireby, D., 343
Silberston, D., 326
Smith, N. N. P., 355
Smith, S. P., 355
Society of Chemical Industry, 375
Speakman, J. C., 337
Sprott, W. J. H., *ed.* 320
Steeds, W., 361
Stekhoven, G. S., *comp.* 362
Stewart, J., 382
Swineford, A., *ed.* 345
Sykes, J. B., *tr.* 329

Tai Tsun Wu, 354
Tedynskii, O. S., 371
Terras, J. A., 356
Thornton, N., 365
Thrower, S. E., *rev.* 360
Town, H. C., 352
Tucker, C. A., 322

U.S.S.R. Academy of Sciences, 329

van Mansum, C. J., *comp.*, 380
Vanderwerf, C. A., 339
von Kármán, T., 334–5

Westwood, W., 376
Wilkins, H. P., 330
Wilkinson, W. L., 336
Woods, S. D., 341
Wu, Tai Tsun, 354

Yarborough, E. H. Cooke-, 353

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VOLUME 25 . NUMBER 7

002 Documentation

381

INTERNATIONAL conference on scientific information, Washington, November 16–21, 1958: proceedings. Washington, National Academy of Sciences–National Research Council, 1959. 2 v. 24, 812; 12, 813–1635pp., diagrs., tables. $20.

B–C Contains papers and summaries of discussions dealing with literature needs of scientists, abstracting and indexing services, information storage and retrieval, and other aspects of scientific communication and documentation.

007 Human work

NATIONAL PHYSICAL LABORATORY 382

Mechanization of thought processes: proceedings of a symposium held at the Laboratory on 24th, 25th, 26th, and 27th November 1958. HMSO, 1959. 2 v. x,532; 533–980pp., diagrs., tables. 50*s*. *National Physical Laboratory symposium no. 10.*

B Includes papers on general principles, automatic programming, mechanical translation, speech recognition, learning in machines; implications for biology and for industry.

02 LIBRARIANSHIP

CORBETT, E. V. 383

Public library finance and accountancy. Library Association, 1960. xi,212pp., tables, bibliog. 24*s* (18*s* to members).

B The first comprehensive treatment of local authority finance as it affects public library administration. For students and practising senior librarians.

INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY. Applied Chemistry 384
Section. *Plastics and high polymers division*

Classification of high polymers: a review; prep. by R. Houwink and H. Bouman. Butterworths Scientific, 1960. vi,54pp., diagrs., bibliog. 10*s* 6*d*.

B Critical and objective review of existing classification systems covering the field of plastics, rubbers, and synthetic fibres.

MUNBY, A. N. L. 385

Cambridge college libraries: aids for research students. Cambridge, Heffer, 1960. xv,55pp. 8*s* 6*d*.

D Emphasis is placed on the valuable special collections of interest to research workers in the various college libraries.

3 SOCIAL SCIENCES

33 ECONOMICS

MANCHESTER JOINT RESEARCH COUNCIL 386

Economic aspects of fuel & power in British industry: papers presented at a conference organized by the Manchester Joint Research Council, held at Manchester College of Science and Technology, 5–7 November, 1958. Manchester, Manchester U.P., [1960]. viii,217pp., plates, tables, diagrs. 25*s*.

C Deals with modern technological advances and their economic repercussions.

STANFORD RESEARCH INSTITUTE. International Industrial Development Center 387
Small industry development organizations: a world wide directory; comp. by D. R. Liggett. Glencoe (Ill.) Free P., 1959. x,157pp. $10.
D Lists some 300 organizations, in 78 countries, devoted to the development of small industry.

37 EDUCATION

DIACK, H. 388
Reading and the psychology of perception. Nottingham, Skinner, 1960. 155, xxiiipp., tables, diagrs., bibliog. 21*s*.
A Examination of development of language and perception in children in its relevance to teaching of reading.

ROSS, A. M. 389
The education of childhood: the primary school of today: its growth and work. Harrap, 1960. 159pp. 10*s* 6*d*.
A Consideration of the work of the primary school as foundation of English educational system.

TANSLEY, A. E. *and* GULLIFORD, R. 390
The education of slow learning children. R & KP, 1960. viii,255pp., bibliog. 28*s*.
B Summary of intellectual, emotional, and physical characteristics of very backward children. Practical book for teachers of such children.

5 NATURAL SCIENCES

EASTON, W. H. 391
Invertebrate paleontology. N.Y., Harper, 1960. xii,701pp., illus. $10. *Harper's geoscience series.*
B

PAYNE, G. L. 392
Britain's scientific and technological manpower; prepared for the President's Committee on Scientists and Engineers. Stanford (Calif.), Stanford U.P.; London, OUP, 1960. xiii,466pp., tables, diagrs., bibliog. $8.50; 45*s*.
B Survey, based on official sources, of British problems in supply of scientists and engineers and part played by educational system in remedying them.

51 MATHEMATICS

GREENSPAN, D. 393
Theory and solution of ordinary differential equations. N.Y., London, Macmillan (N.Y.), 1960. 148pp. $5.50; 38*s* 6*d*. *Series of mathematics texts.*
B Discusses existence theory as well as methods of solution.

GRENANDER, U., *ed.* 394
Probability and statistics: the Harald Cramér volume. Stockholm, Almqvist & Wiksell; N.Y., Wiley; [London, C & H, 1960]. 434pp., tables, diagrs., bibliog. $12.50; 100*s*.
C

HARDY, G. H. *and* WRIGHT, E. M. 395
An introduction to the theory of numbers. 4th ed. Oxford, Clarendon P., 1960. xvi,421pp., diagrs., bibliog. 42*s*.
C Still indispensable in its field. Some proofs revised, bibliographical notes brought up to date, and valuable index of names added.

53 PHYSICS

CARROLL, R. L. 396
The aerodynamics of powered flight. N.Y., London, Wiley, [1960]. ix,275pp., tables, diagrs. $8.50; 120*s*.

B Clear introduction, largely in physical terms, for engineering undergraduates. Understanding of lift is first established by study of rocket thrust, after which major principles of powered flight are developed.

DE BROGLIE, L. 397
Non-linear wave mechanics: a causal interpretation, tr. [from the French] by A. Knodel and J. C. Miller. Amsterdam, London, N.Y., [etc.], Elsevier, 1960. xi,304pp., diagrs., bibliog. 30*fl*; 57*s*.

C The founder of wave mechanics develops his early causal, as opposed to purely probabilistic, theory. Translation of French edition of 1956.

398
HYPERSONIC flow: proceedings of the eleventh symposium of the Colston Research Society held in the University of Bristol, April 6th–April 8th, 1959, ed. by A. R. Collar, J. Tinkler. Butterworths Scientific, 1960. xv,432pp., plate, illus., tables, diagrs., bibliog. 70*s*.

C

MESSEL, H., *ed.* 399
Selected lectures in modern physics for school science teachers: a course of lectures contributed . . . to the Nuclear Research Foundation Summer School of Science Teachers, held in Sydney, Australia, 13th to 24th June 1958. London, Macmillan; N.Y., St Martin's P., 1960. vii,328pp., illus., tables, diagrs., bibliogs. 30*s*; $4.50.

A–B Twenty-two lectures by authorities in various fields of modern physics, including atomic physics, cosmic rays, radioastronomy, and electronics. For sixth-form teaching.

ROZENBERG, G. B., *ed.* 400
Calculation of the brightness of light in the case of anisotropic scattering; part 1, tr. from Russian. N.Y., Consultants Bureau, 1960. [4],104pp., tables, diagrs., bibliog. $8. *Transactions (Trudy) of the Institute of Atmospheric Physics, no. 1.*

C Useful set of tables, with account of underlying theory, for those engaged on research into scattering of light by the atmosphere. Original Russian text published by Academy of Sciences of the USSR.

401
STRUCTURAL mechanics: proceedings of the first symposium on naval structural mechanics, held at Stanford University, California, August 11–14, 1958, sponsored by the Office of Naval Research and Stanford University, ed. by J. N. Goodier and N. J. Hoff. Oxford, [etc.], N.Y., Paris, Pergamon P., 1960. xi,594pp., plates, tables, diagrs., bibliogs. 70*s*; $8.

C Provides analyses and critical reviews of problems connected with naval architecture, and includes results of recent American research.

THWAITES, B., *ed.* 402
Incompressible aerodynamics: an account of the theory and observation of the steady flow of incompressible fluid past aerofoils, wings, and other bodies. Oxford, Clarendon P., 1960. xviii,636pp., plates, tables, diagrs., bibliog. 75*s*. *Fluid motion memoirs.*

C Reference work on the latest experimental and theoretical information, with good illustrations and comprehensive bibliography and indexes.

54 CHEMISTRY

ANFINSEN, C. B., jr, *and others, eds* 403
Advances in protein chemistry, ed. by C. B. Anfinsen, M. L. Anson, K. Bailey, J. T. Edsall; vol. XIV. N.Y., London, Academic P., 1959. xxiii,520pp., illus., tables, diagrs., bibliogs. $14; 100*s*.
C Authoritative review primarily intended for research workers.

BERL, W. G., *ed.* 404
Physical methods in chemical analysis; vol. 1. 2nd rev. ed. N.Y., London, Academic P., 1960. xiv,686pp., illus., tables, diagrs., bibliogs. $19; 143*s*.
B Aims to enable non-specialist analyst to use those methods involving interaction of radiation with matter. Brought up to date within original framework.

DAUDEL, P. 405
Radioactive tracers in chemistry and industry: text augmented and revised by the author, tr. [from the French] by U. Eisner, foreword by I. Joliot-Curie. Griffin, 1960. xi,210pp., tables, diagrs., bibliog. 36*s*.
B Representative examples of use of tracers in chemical analysis and industrial processes, for the non-specialist.

EABORN, C. 406
Organosilicon compounds. London, Butterworths Scientific; N.Y., Academic P., 1960. x,530pp., tables, diagrs., bibliogs. 80*s*; $15.
C Comprehensive review of chemistry, preparation, and application of the compounds. Intended for research workers and may also interest advanced students.

GARRELS, R. M. 407
Mineral equilibria at low temperature and pressure. N.Y., Harper, 1960. xvi, 254pp. $6. *Harper's geoscience series.*
B

408
GAS chromatography abstracts 1958 (references to the end of 1958), comp. and ed. by C. E. H. Knapman, assistant ed. C. G. Scott, sponsored by the Gas Chromatography Discussion Group (associated with the Hydrocarbon Research Group of the Institute of Petroleum). Butterworths Scientific, 1960. vii, 262pp. 42*s*.
C Inaugural volume of new annual series. 1468 entries and comprehensive classified subject index of 36 pages.

WOLFROM, M. L. *and* TIPSON, R. S., *eds* 409
Advances in carbohydrate chemistry; vol. 14. N.Y., London, Academic P., 1959. xi,526pp., plate, tables, diagrs. $15; 107*s* 6*d*.
C Compiled by international panel of experts, each an authority in his own branch of the subject, providing permanent reference work on recent advances.

55 GEOLOGY

DOBRIN, M. B. 410
Introduction to geophysical prospecting. 2nd ed. N.Y., London, McG-H, 1960. ix,446pp., illus. $9.50; 74*s*.
B

WELLER, J. M. 411
Stratigraphic principles and practice. N.Y., Harper, 1960. xvi,725pp., illus. $10. *Harper's geoscience series.*
B

551.5 Meteorology

BOLIN, B., *ed.* 412
The atmosphere and the sea in motion: scientific contributions to the Rossby Memorial Volume. N.Y., [London], The Rockefeller Institute P. in association with OUP, 1959 [i.e. 1960]. 509pp., illus., plate, tables, diagrs., bibliogs. $15; 105*s*.

C Composite work discussing most of the major problems and topics in contemporary meteorology.

RATCLIFFE, J. A., *ed.* 413
Physics of the upper atmosphere. N.Y., London, Academic P., 1960. xi,586pp., plates, diagrs., bibliog. $14.50; 103*s* 6*d*.

C Comprehensive and up-to-date account of all aspects of upper atmosphere research, by twelve leading authorities.

57 BIOLOGY

DARLINGTON, C. D. *and* LA COUR, L. F. 414
The handling of chromosomes. 3rd rev. ed. A & U, 1960. 248pp., plates, tables, diagrs., bibliog. 30*s*.

B Complete revision, inclusive of bibliography, with new sections on nucleic acid and autoradiography. Previous edition 1947.

577.1 Biochemistry

415
BIOCHEMICAL preparations; vol. 7, ed. by H. A. Lardy and others. N.Y., London, Wiley, [1960]. ix,102pp., tables, diagrs. $5.25; 42*s*.

B Twenty preparations include two syntheses, one chemical and the other enzymatic, of ATP isotopically labelled with P^{32}. Recent methods and techniques demonstrated in clearly described examples. Distributed in U.K. by C & H.

BRACHET, J. 416
The biochemistry of development. London, [etc.], Los Angeles, Pergamon P., 1960. xii,320pp., illus., diagrs., bibliogs. 65*s*; $10. *International series of monographs on pure and applied biology. Division: modern trends in physiological sciences; gen. eds P. Alexander and Z. M. Bacq; vol. 2.*

B–C Authoritative and up-to-date text on recent developments for advanced students and research workers. Well illustrated and documented.

FLORKIN, M. *and* MASON, H. S. 417
Comparative biochemistry: a comprehensive treatise; vol. 2, free energy and biological function. N.Y., London, Academic P., 1960. xix,685pp., illus., tables, diagrs., bibliogs. $20; 135*s* 9*d*.

C Ranges from biosynthesis of phosphates and saccharides to muscular contraction, nerve conduction, and bioluminescence, assembling facts often not easily located. Well indexed.

59 ZOOLOGY

ARTHUR, D. R. 418
Ticks: a monograph of the ixodoidea; part 5, on the genera dermacentor, anocentor, cosmiomma boophilus & margaropus. CUP, 1960. xviii,251pp., illus., plates, diagrs. 60*s*.

C Synonomy and literature, morphology, distribution, keys to species and immature stages of genera named. Parts 1–4 by Prof. G. H. F. Nuttall and others, 1908–26; two further parts planned.

CHRISTOPHERS, *Sir* S. R. 419
Aëdes Aegypti (L.): the yellow fever mosquito, its life history, bionomics and structure. Cambridge, CUP, 1960. xii,739pp., illus., tables, diagrs., bibliog. 75*s*.
B Comprehensive work by one of the highest authorities on the mosquito.

LISNEY, A. A. 420
A bibliography of British lepidoptera, 1608–1799. Chiswick P., [1960]. xviii, 315pp., plates, facsimiles. 189*s*.
D Arranged chronologically. Under each author is given brief biography, general bibliographical comment, and detailed account of those works containing reference to British lepidoptera, with all editions and issues traced.

STONE, A. *and others* 421
Synoptic catalog of the mosquitoes of the world (diptera, culicidae). Washington (D.C.), Entomological Society of America, 1959. [5],358pp. $7.25. *Thomas Say Foundation publications vol. 6.*
D

6 APPLIED SCIENCES

62 ENGINEERING

621 Mechanical engineering

EVEN, A. D. 422
Engineering data processing: system design. Princeton (N.J.), London, [etc.], Van Nostrand, [1960]. ix,282pp., illus., tables, diagrs. $6.50; 49*s*.
B–C Detailed treatment of physical and organizational aspects of producing, storing, sorting, and disseminating engineering design office output in the form of parts lists, punched cards, microfilms, flow-sheets, etc., excluding electronic computers.

JUDGE, A. W. 423
Small gas turbines and free piston engines. C & H, 1960. vii,328pp., illus., tables, diagrs., bibliog. 48*s*.
B Review of gas turbine development for light aircraft and automobile purposes. Well illustrated.

MARTER, D. H. 424
Thermodynamics and the heat engine. Thames & Hudson, [1960]. xi,812pp., plates, tables, diagrs., bibliog. 63*s*.
B Theory and application of thermodynamics presented for students in initial years of courses on heat engines.

RUZICKA, J. E., *ed.* 425
Structural damping: papers presented at a colloquium on structural damping held at the ASME annual meeting in Atlantic City, N.J., in December 1959, sponsored by the Shock and Vibration Committee of the Applied Mechanics Division of the ASME. Oxford, [etc.], N.Y., Paris, Pergamon P., 1960. v,165 pp., illus., tables, diagrs., bibliogs. 30*s*.
C For civil engineers. Typewriter script.

SCHWARZKOPF, P. *and* KIEFFER, R. 426
Cemented carbides. N.Y., London, Macmillan (N.Y.), 1960. 349pp., illus. $15; 105*s*.
C

63 AGRICULTURE

PAWSON, H. C. 427

Cockle Park Farm: an account of the work of the Cockle Park Experimental Station from 1896 to 1956. London, N.Y., [etc.], OUP, 1960. xvi,261pp., illus., plates, tables, diagrs. 35*s*; $5.60. *University of Durham publications.*

A–B Account of development of a world-famous experimental farm and work carried out. The classic experiments begun at the end of last century are described in detail.

WILSON, F. 428

A review of the biological control of insects and weeds in Australia and Australian New Guinea. Farnham Royal (Bucks), Commonwealth Agriculture Bureaux, 1960. vii,102pp., tables, bibliog. 25*s*. *Commonwealth Institute of Biological Control, Ottawa, Canada. Technical communication no. 1.*

C Authoritative summary of case histories of over fifty insect pests and twelve important weeds. Present level of biological control is estimated in each case.

WILSON, G. F. 429

Horticultural pests: detection and control, rev. by P. Becker. Crosby Lockwood, 1960. xix,240pp., illus., plates, diagrs., bibliog. 25*s*. *Agricultural and horticultural series, gen. ed. H. C. Long.*

A–B Third edition of *The detection and control of garden pests*, covering the insects and other animals likely to cause damage in British gardens.

66 CHEMICAL TECHNOLOGY

HOCKENHULL, D. J. D., *ed.* 430

Progress in industrial microbiology; vol. 2. Heywood, 1960. vii,194pp., plates, tables, diagrs., bibliogs. 45*s*.

C Annual survey. Includes authoritative articles on lactobacilli, production of vitamin B_{12} and sulphide from sewage, fermenter design, mathematical interpretation of non-linear problems, among others.

HUGOT, E. 431

Handbook of sugar cane engineering, tr. and rev. by G. H. Jenkins. Amsterdam [etc.], Princeton (N.J.), Elsevier, 1960. xx,872pp., illus., tables, diagrs., bibliog. 90 *fl*; 170*s*.

B First published Paris, Dunod, 1949, as *La sucrerie de cannes*. Guide for sugar technologists based on author's practice in Réunion plus translator's experience in Queensland. Distributed in English language area by Van Nostrand.

KILNER, E. *and* SAMUEL, D. M. 432

Applied organic chemistry. Macdonald & Evans, 1960. xi,484pp., plate, tables, diagrs. 50*s*.

B Bridges gap between academic textbooks and advanced reference works. Gives student insight into industrial applications.

PILLSBURY COMPANY 433

Conversion factors and technical data for the food industry, comp. by C. G. Harrel and R. J. Thelen. 6th ed. Minneapolis, Burgess, 1959. 1426pp., diagrs. $20.

D Measurement equivalents, composition of foods, etc.; definitions and U.S. standards of identity for foods; general information with particular reference to milling and baking. Considerably enlarged. First time on sale.

SMITH, G. 434

An introduction to industrial mycology, foreword by H. Raistrick. 5th ed. Edward Arnold, 1960. xvi,399pp., illus., tables, diagrs., bibliogs. 40*s*.

B Clear authoritative text for chemists and technologists, brought up to date with particular attention to recent taxonomic studies. Well illustrated.

7 FINE ARTS

77 PHOTOGRAPHY

435

CINEFLUOROGRAPHY: proceedings of the first annual symposium on cinefluorography, sponsored by the Department of Radiology, University of Rochester School of Medicine and Dentistry, Rochester, New York, Friday and Saturday, November 14 and 15, 1958, ed. by G. H. S. Ramsey and others. Springfield (Ill.), Thomas, [Oxford, Blackwell Scientific], [1960]. xvi,266pp., illus., tables, diagrs., bibliog. $11.75; 94*s*.

C Discusses a form of radiography in which a motion picture is made of the fluorescent screen. Papers cover most aspects of subject, including applications of image intensifiers and television.

HAWKINS, R. 436

The production of micro-forms. New Brunswick (N.J.), Rutgers State University Graduate School of Library Service, 1960. v,208pp., bibliog. $5. *The state of the library art, ed. by R. R. Shaw; vol. 5, part 1.*

B Survey of the literature of every aspect of microreproduction with detailed list of 439 references.

HERTFORDSHIRE COUNTY COUNCIL. Technical Information Service 437

Microtexts as media for publication: the papers and discussion of a symposium held at the Hatfield Technical College on 10th November 1959. Hatfield, the Council, 1960. 87pp., diagrs. 9*s*.

B Papers on the possibilities of microfilm, microfiche, and microcard as media for original publication with lists of publishers in these forms and a sample edition of the book on two microcards.

LAWSON, D. F. 438

The technique of photomicrography. Newnes, 1960. xvi,256pp., plates, tables, diagrs., bibliog. 55*s*.

B Review of techniques and applications of photomicrography, for professional and amateur photographers as well as for scientists. Lavishly illustrated.

STEWART, J., HICKEY, D. *and others* 439

Reading devices for micro-images. New Brunswick (N.J.), Rutgers State University Graduate School of Library Service, 1960. viii,205pp., bibliog. $5. *The state of the library art, ed. by R. R. Shaw; vol. 5, part 2.*

B and D Thorough study, based mainly on published literature, of chronological development and present state of subject. Appended list of references constitutes exhaustive bibliography.

TILTON, E. M., *comp.* 440

A union list of publications in opaque microforms. N.Y., Scarecrow P.; London, B & S, 1959. viii,9–346pp. $7.50; 68*s*.

D Compilation, in alphabetical sequence, of authors and journal titles of American publishers' listings of opaque microfilm reproductions up to December 1958.

9 GEOGRAPHY. BIOGRAPHY. HISTORY

91 GEOGRAPHY

441

UNGAVA Bay papers: scientific results of the Oxford University Hudson Strait Expedition 1931. OUP for the Oxford University Exploration Club, 1960. Illus., plates, tables, diagrs., bibliogs. 50*s*.

B–C Collection of previously published papers, bound as printed; various paging, various dimensions. Covers fauna and flora, geology, topography, meteorology, and ethnology of Akpatok Island.

Publishers

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B & S	Bailey & Swinfen
C & H	Chapman and Hall
CUP	Cambridge University Press
EUP	English Universities Press
HMSO	Her Majesty's Stationery Office
McG-H	McGraw-Hill
O & B	Oliver and Boyd
OUP	Oxford University Press
R & KP	Routledge & Kegan Paul
ULP	University of London Press

Subject Index

REFERENCE IS TO UDC NUMBER

Agriculture 63
Applied sciences 6

Biochemistry 577.1
Biology 57

Chemical technology 66
Chemistry 54

Documentation 002

Economics 33

Education 37
Engineering 62

Fine Arts 7

Geography. Biography. History 9
Geography 91
Geology 55

Human work 007

Librarianship 02

Mathematics 51
Meteorology 551.5

Natural sciences 5

Photography 77
Physics 53

Social sciences 3

Zoology 59

Author or Title Index

Alexander, P., *ed.* 416
American Association of Mechanical Engineers, 425
Anfinsen, C. B., jr, *ed.* 403
Anson, M. L., *ed.* 403
Arthur, D. R., 418

Bacq, Z. M., *ed.* 416
Bailey, K., *ed.* 403
Berl, W. G., *ed.* 404
Biochemical preparations, 415
Bolin, B., *ed.* 412
Bouman, H., 384
Brachet, J., 416
Broglie, L. de, 397

Carroll, R. L., 396
Christophers, *Sir* S. R., 419
Cinefluorography, 435
Collar, A. R., *ed.* 398
Corbett, E. V., 383
Cour, L. F. La, 414

Darlington, C. D., 414
Daudel, P., 405
de Broglie, L., 397
Diack, H., 388
Dobrin, M. B., 410

Eaborn, C., 406
Easton, W. H., 391
Edsall, J. T., *ed.* 403
Eisner, U., *tr.* 405
Even, A.D., 422

Florkin, M., 417

Garrels, R. M., 407
Gas chromatography abstracts, 408
Gas Chromatography Discussion Group, 408
Goodier, J. N., *ed.* 401
Greenspan, D., 393
Grenander, U., *ed.* 394
Gulliford, R., 390

Hardy, G. H., 395
Harrel, C. G., *comp.* 433
Hawkins, R., 436
Hertfordshire County Council. Technical Information Service, 437
Hickey, D., 439
Hockenhull, D. J. D., *ed.* 430
Hoff, N. J., *ed.* 401
Houwink, R., 384
Hugot, E., 431
Hypersonic flow, 398

Institute of Petroleum, Hydrocarbon Research Group, 408
International conference on scientific information, 381
International Union of Pure and Applied Chemistry, 384

Jenkins, G. H., *tr.* 431
Judge, A. W., 423

Kieffer, R., 426
Kilner, E., 432
Knapman, C. E. H., *comp.* 408
Knodel, A., *tr.* 397

La Cour, L. F., 414
Lardy, H. A., *ed.* 415
Lawson, D. F., 438
Liggett, D. R., *comp.* 387
Lisney, A. A., 420
Long, H. C., *ed.* 429

Manchester Joint Research Council, 386
Marter, D. H., 424
Mason, H. S., 417
Messel, H., *ed.* 399
Miller, J. C., *tr.* 397
Munby, A. N. L., 385

National Academy of Sciences, 381
National Physical Laboratory, 382
National Research Council, 381

Oxford University Hudson Strait Expedition, 441

Pawson, H. C., 427
Payne, G. L., 392
Pillsbury Company, 433

Ramsey, G. H. S., 435
Ratcliffe, J. A., *ed.* 413
Ross, A. M., 389
Rozenberg, G. B., *ed.* 400
Ruzicka, J. E., *ed.* 425

Samuel, D. M., 432
Schwarzkopf, P., 426
Scott, C. G., *ed.* 408
Shaw, R. R., *ed.* 436, 439
Smith, G., 434
Stanford Research Institute, 387
Stewart, J., 439
Stone, A., 421
Structural mechanics, 401

Tansley, A. E., 390
Thelen, R. J., *comp.* 433
Thwaites, B., *ed.* 402
Tilton, E. M., *comp.* 440
Tinkler, J., *ed.* 398
Tipson, R. S., *ed.* 409

Ungava Bay papers, 441
University of Rochester School of Medicine and Dentistry, 435

Weller, J. M., 411
Wilson, F., 428
Wilson, G. F., 429
Wolfrom, M. L., *ed.* 409
Wright, E. M., 395

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VOLUME 25 . NUMBER 8

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LEWIS, P. R. 442
The literature of the social sciences: an introductory survey and guide. Library Association, 1960. xx,222pp. 28*s* (21*s* to members).

D Deals with literature of economics, economic history, statistics, commerce, political science, law, international affairs, and sociology.

RICHARDSON, J. H. 443
Economic and financial aspects of social security. A & U, 1960. 271pp., tables, bibliog. 30*s*.
B

37 EDUCATION

GREAT BRITAIN. Ministry of Education 444
Science in secondary schools. HMSO, 1960. vi,164pp., plates, diagrs. 6*s*. *Ministry of education pamphlet no. 38.*

A Analyses the purposes of science teaching and suggests practical measures for carrying them out.

445
ENCYCLOPÆDIA of educational research: a project of the American Educational Research Association, ed. by C. W. Harris and M. R. Liba. 3rd ed. N.Y., [London], Macmillan (N.Y.), 1960. xxxi,1564pp., bibliog. $25; 8 *gns*.

D Previous edition 1950; completely revised to include recent work.

5 NATURAL SCIENCES

51 MATHEMATICS

446
FRONTIERS of numerical mathematics: a symposium conducted by the Mathematics Research Center, United States Army and the National Bureau of Standards at the University of Wisconsin, Madison, Wisconsin, October 30 and 31, 1959, ed. by R. E. Langer. Madison (Wisconsin), Wisconsin U.P., 1960. xi,132pp., tables, diagrs., bibliogs. $3.50. *Publication no. 4 of the Mathematics Research Center, United States Army, University of Wisconsin.*

C Eight papers describe current problems in applied mathematics and indicate possible lines of attack, with special reference to methods of numerical analysis.

FUCHS, L. 447
Abelian groups. Oxford, London, Pergamon P., 1960. 367pp., bibliog. 63*s*. [*International series of monographs on pure and applied mathematics, gen. eds I. N. Sneddon and S. Ulam.*]

C The most comprehensive work in the field.

HARTLEY, E. M. 448
Cartesian geometry of the plane. Cambridge, CUP, 1960. xi,324pp., diagrs. 20*s*.

B Contains large collection of examples, with hints for solution.

LANCE, G. N. 449
Numerical methods for high speed computers. Iliffe for *Data processing*, 1960. x,166pp., tables, diagrs., bibliog. 42*s*.

C Describes those methods of computing functions and finding numerical solutions of equations which are most appropriate for use on a high-speed electronic computer.

NEVANLINNA, R. *and others* 450
Analytic functions. Princeton (N.J.), Princeton U.P., [London, OUP], 1960. vii,197pp., table, diagrs., bibliogs. $5; 40*s*. *Princeton mathematical series, eds M. Morse and A. W. Tucker, no. 24.*

C The eight principal addresses to the 1957 Princeton conference. Of value to research workers for its account of recent work by leading experts.

SUPPES, P. 451
Axiomatic set theory. Princeton (N.J.), [etc.], London, Van Nostrand, [1960]. xii,265pp., bibliog. $6; 45*s*. *University series in undergraduate mathematics, ed. by J. L. Kelley and P. R. Halmos.*

B Zermelo-Fraenkel set theory is developed logically from axiomatic foundations, but logical symbolism is introduced gently, with informal elucidation and numerous simple exercises to help the novice.

VAJDA, S. 452
An introduction to linear programming and the theory of games. London, Methuen; N.Y., Wiley, 1960. 76pp., tables, diagrs. 9*s* 6*d*.

B Replaces author's earlier book on same subject, which is central to important new field of operational research.

53 PHYSICS

453
ADVANCES in cryogenic engineering; vol. 5, proceedings of the 1959 cryogenic engineering conference, University of California, Berkeley, California, September 2–4, 1959, ed. by K. D. Timmerhaus. N.Y., Plenum P., 1960. viii, 584pp., illus., tables, diagrs., bibliogs. $13.50.

C Virtually an account of current American practice in technical matters; missiles, gas liquefaction cycles, insulation, transport, etc. all included.

FANO, R. M., *and others* 454
Electromagnetic fields, energy, and forces, by R. M. Fano, L. J. Chu, R. B. Adler. N.Y., [London], Wiley, [1960]. xv,520pp., diagrs., bibliog. $12; 96*s*. *M.I.T. core curriculum program in electrical engineering series.*

B Develops consistent macroscopic theory of magnetism and discusses relation between circuit theory and field theory.

HEINE, V. 455
Group theory in quantum mechanics: an introduction to its present usage. London, [etc.], N.Y., Paris, Pergamon P., 1960. ix,468pp., tables, diagrs., bibliog. 90*s*; $15. *International series of monographs on pure and applied mathematics, gen. eds I. N. Sneddon and S. Ulam; vol. 9.*

B–C The symmetries arising in quantum mechanics can be described by group concepts; this book presumes some knowledge of quantum mechanics, but not of matrices and groups, which are studied here.

IPSEN, D. C. 456
Units, dimensions, and dimensionless numbers. N.Y., [etc.], London, McG-H, 1960. xiii,236pp. $6.50; 50*s* 6*d*.

C

LOW, W. 457
Paramagnetic resonance in solids. N.Y., London, Academic P., 1960. viii, 212pp., tables, diagrs. $7.50; 60*s*. *Solid state physics: advances in research and applications, eds F. Seitz, D. Turnbull, supplement 2.*

C Develops basic principles of paramagnetic resonance spectroscopy and synthesizes main published work. Theory is related to measurement of energy levels of specific ions in certain crystals, notably the iron, rare earth, and uranium groups.

MENDELSSOHN, K., *ed.* 458
Progress in cryogenics; vol. 2. Heywood, 1960. v,280pp., plates, tables, diagrs., bibliogs. 63*s*.

B Eight chapters by international authorities cover wide range of subjects, from strictly practical to academic, in readable style. For all scientists interested in low temperatures.

ROBERTS, J. K. 459
Heat and thermodynamics. 5th ed., rev. by A. R. Miller. Blackie, 1960. xx, 619pp., tables, diagrs., bibliogs. 45*s*.

B Discusses applications of thermodynamics to physics, engineering, and physical chemistry, including quantum theory, phase transitions, and low-temperature phenomena.

460
SOLID state physics in electronics and telecommunications: proceedings of an international conference held in Brussels, June 2–7, 1958, [sponsored by] International Union of Pure and Applied Physics, ed. by M. Désirant, J. L. Michiels; vol. 3, magnetic and optical properties, part 1. London, N.Y., Academic P., 1960. xvi,557pp., illus., tables, diagrs., bibliogs. 128*s* 6*d*; $18.

C Research papers on magnetic and optical properties of ferrites, magnetic materials, and garnets, and on magnetic resonance. In English, French, and German.

539.1 Nuclear physics

ALLIS, W. P., *ed.* 461
Nuclear fusion. Princeton (N.J.), London, [etc.], Van Nostrand, 1960. viii, 488pp., illus., tables, diagrs., bibliogs. $12.50; 94*s*. *Second Geneva series on the peaceful uses of atomic energy, ed. by J. G. Beckerley.*

B–C Integrated account of contents of about one hundred papers, mainly on experimental aspects, presented at the 1958 conference. Valuable references and indexes.

54 CHEMISTRY

BELL, R. P. 462
The proton in chemistry. London, Methuen; [Ithaca (N.Y.), Cornell U.P.], 1959 [i.e. 1960]. vii,223pp., tables, diagrs., 42*s*. *George Fisher Baker non-resident lectureship in chemistry at Cornell University.*

C Series of lectures by outstanding researcher, bringing together recent work on various aspects of acid-base reactions.

BRADDICK, H. J. J. 463
Mechanical design of laboratory apparatus. London, C & H; N.Y., Reinhold, on behalf of the Institute of Physics, 1960. 47pp., illus., table, diagrs., bibliog. 6*s*. *Institute of Physics monographs for students.*

B Introduction to principles of kinematic design and valuable guide for anyone who has to handle scientific apparatus.

BUZZATI-TRAVERSO, A. A., *ed.* 464
Immediate and low level effects of ionizing radiations: proceedings of the symposium held at Venice on June 22nd–26th, 1959 under the joint sponsorship of U.N.E.S.C.O., I.A.E.A., and C.N.R.N., and published as a supplement to the *International journal of radiation biology*. Taylor & Francis, 1960. xii,381pp., illus., tables, diagrs., bibliogs. 55*s*.

B–C Papers cover a wider range of radiobiological topics than the title indicates. Primarily for specialists.

HESLOP, R. B. *and* ROBINSON, P. L. 465
Inorganic chemistry: a guide to advanced study. Amsterdam, London, N.Y., [etc.], Elsevier, 1960. viii,556pp., tables, diagrs. 24*fl*; 45*s*.

C General review of properties and relations of leading compounds from modern structural point of view, with useful theoretical introduction. To be used as framework for planning study. Distributed in English language area by Van Nostrand.

LAITINEN, H. A. 466
Chemical analysis: an advanced text and reference. N.Y., [etc.], London, McG-H, 1960. xiv,611pp., tables, diagrs., bibliog. $12.50; 97*s*. *McGraw-Hill series in advanced chemistry, ed. by W. C. Fernilius and others.*
C

LEDERER, M., *ed.* 467
Chromatographic reviews: progress in chromatography, electrophoresis and related methods; vol. 2. Amsterdam, London, N.Y., [etc.], Elsevier, 1960. viii,195pp., illus., tables, diagrs., bibliogs. 46*s*.
C Extensive reviews from *Journal of chromatography:* two dealing with technique and four with analysis of particular groups of substances. Distributed in English language area by Van Nostrand.

MANSKE, R. H. F., *ed.* 468
The alkaloids: chemistry and physiology; vol. 7, supplement to vols. 2, 3, 4, and 5. N.Y., London, Academic P., 1960. xiii,559pp., tables, diagrs., bibliogs. $17; 121*s* 6*d*.
C Brings up to date this standard work. More than half the book is concerned with indole and steroid alkaloids.

POPJÁK, G., *ed.* 469
Biochemistry of lipids: proceedings of the fifth international conference on the biochemical problems of lipids held at the fourth international congress of biochemistry, Vienna 1958. Oxford, [etc.], N.Y., Paris, Pergamon P., 1960. xi,228pp., plates, tables, diagrs., bibliogs. 40*s*; $6.50.
B–C Over fifty papers, in English, French, and German, all dealing with original research topics, chiefly fatty acid, lipid and steroid biosynthesis and metabolism.

470
QUANTITATIVE paper chromatography of steroids: proceedings of a conference held at the Ciba Foundation, London, W.1, on 1 July 1958, ed. on behalf of the Society for Endocrinology by D. Abelson and R. V. Brooks. Cambridge, CUP, 1960. viii,103pp., tables, diagrs., bibliogs. 30*s*. *Memoirs of the Society for Endocrinology, no. 8.*
B–C Papers and discussion on technical problems in quantitative application of paper chromatography to separation and estimation of steroids, especially as regards biochemical assay.

UBBELOHDE, A. R. *and* LEWIS, F. A. 471
Graphite and its crystal compounds. Oxford, Clarendon P., 1960. xii,217pp., plates, tables, diagrs., bibliog. 35*s*.
C For those working on theoretical and technological aspects of graphite.

WESTBROOK, J. H., *ed.* 472
Mechanical properties of intermetallic compounds: a symposium held during the 115th meeting of the Electrochemical Society at Philadelphia, Pennsylvania, May 3–7, 1959 and sponsored by the Electrothermics and Metallurgy Division of the Society. N.Y., London, Wiley, [1960]. ix,435pp., illus., tables, diagrs., bibliog. $9.50; 76*s*.
C First explicit treatment of subject.

55 GEOLOGY

CAROZZI, A. V. 473
Microscopic sedimentary petrography. N.Y., London, Wiley, [1960]. viii, 485pp., illus., diagrs., bibliogs. $11.50; 92*s*.
B Treatise on sedimentary rock types, with detailed descriptions and microscopic pictures. Plastic, biochemical, and chemical rocks are all discussed.

RUNCORN, S. K., *ed.* 474
Methods & techniques in geophysics; vol. 1. N.Y., London, Interscience, 1960. ix,374pp., illus., tables, diagrs., bibliog. $10; 72*s*.

C Ten sections, each by authority in field concerned.

58 BOTANY

ESAU, K. 475
Anatomy of seed plants. N.Y., [London], Wiley, [1960]. xvi,376pp., illus., diagrs., bibliog. $7; 56*s*.

B Profusely illustrated with microphotographs and diagrams.

HORSFALL, J. G. *and* DIMOND, A. E., *eds.* 476
Plant pathology: an advanced treatise; vols 1 and 2. N.Y., London, Academic P. Illus., tables, diagrs., bibliogs. 2v. $22; 157*s* 6*d* per vol.

C Vol. 1, the diseased plant, 1959. xiv,674pp. Essays on different effects of pathogen-induced disease (mainly fungal) on higher plants. Vol. 2, the pathogen, 1960. xiv,715pp. Deals with reproduction, infecting mechanisms and evolution of different classes of pathogens, and with chemical and other combative methods.

6 APPLIED SCIENCES

61 MEDICAL SCIENCES

BAYLISS, L. E. 477
Principles of general physiology. 5th ed., vol. 2, general physiology. Longmans, 1960. xxiii,848pp., plates, tables, diagrs., bibliogs. 85*s*.

B–C Major part of Dr Bayliss's revision of his father's textbook, providing sound first source of information for physiological and zoological students.

DAYKIN, P. W. 478
Veterinary applied pharmacology and therapeutics. Baillière, Tindall & Cox, 1960. 767pp., tables, diagrs., bibliog. 55*s*.

B

FRENKIEL, F. N. *and* SHEPPARD, P., *eds* 479
Atmospheric diffusion and air pollution: proceedings of a symposium held at Oxford, August 24–29, 1958 under the auspices of the International Union of Geodesy and Geophysics. N.Y., London, Academic P., 1959. xvii,471pp., plates, tables, diagrs., bibliogs. $12; 86*s*. *Advances in geophysics, ed. by H. E. Landsberg and J. Van Mieghem, vol. 6.*

C Authoritative survey of main theoretical aspects of atmospheric pollution. Less useful for solving specific practical problems.

480
THE HARVEY lectures: delivered under the auspices of the Harvey Society of New York, 1958–9, under the patronage of the New York Academy of Medicine; series LIV, by F. Jacob and others. N.Y., London, Academic P., 1960. xv,312pp., illus., tables, diagrs., bibliogs. $7.50; 60*s*.

C Nine lectures on various aspects of general physiology. Notable are Wigglesworth on metamorphosis in insects, Lorenz on approach to problems of behaviour, and reviews on purine and protein synthesis.

62 ENGINEERING

621 Mechanical engineering

HAWTHORNE, W. R. *and* OLSON, W. T., *eds* 481
Design and performance of gas turbine power plants. London, OUP; [Princeton (N.J.), Princeton U.P.], 1960. xiii,563pp., plates, tables, diagrs., bibliogs. 105*s*; $15. *High speed aerodynamics and jet propulsion, ed. by T. von Kármán and others; vol. XI.*

C Comprehensive treatment of fundamental aspects of gas turbines: combustion chamber design, mechanical and metallurgical aspects, and performance. Aerodynamics and thermodynamics are excluded.

TAYLOR, C. F. 482
The internal-combustion engine in theory and practice; vol. 1, thermodynamics, fluid flow, performance. Cambridge (Mass.), Technology P.; N.Y., London, Wiley, [1960]. x,574pp., illus., tables, diagrs., bibliog. $16; 128*s*.

C Up-to-date, informative book based on author's close contact with practical developments and thorough knowledge of underlying principles.

621.3 Electrical engineering

JONSCHER, A. K. 483
Principles of semiconductor device operation. Bell, [1960]. viii,168pp., tables, diagrs., bibliogs. 30*s*.

B Presents systematic account of injection, transport, and decay of excess carriers in semiconductors, not hitherto dealt with in book literature.

LANGLOIS-BERTHELOT, R. 484
Transformers and generators for power systems: their behaviour, capabilities and rating, tr. and rev. in collaboration with H. M. Clarke, foreword by C. F. Wagner. Macdonald, 1960. xxiv,25–541pp., tables, diagrs., bibliogs. 65*s*.

C Detailed account of specification requirements, technical performance, and operational behaviour of the machines. For students, plant engineers, and system operation engineers.

WELSBY, V. G. 485
The theory and design of inductance coils. 2nd ed., with a foreword by Sir G. Radley. Macdonald, 1960. xviii,19–232pp., plates, tables, diagrs., bibliog. 30*s*.

C Gives useful information on practical design, construction, and performance of coils used in telecommunication engineering.

624 Civil engineering

SOKOLOVSKI, V. V. 486
Statics of soil media, tr. by D. H. Jones and A. N. Schofield. Butterworths Scientific, 1960. xiii,237pp., tables, diagrs., bibliog. 52*s*.

C Concept of critical equilibrium in a soil obeying Coulomb's equation is developed mathematically into a general theory. Translated from second edition (Moscow, 1954) with some later revision by the author.

VANNER, M. J. 487
Soil classification for cable engineers: E.R.A. simplified system. Leatherhead (Sy), The British Electrical and Allied Industries Research Association, 1960. 12,8pp., illus., tables, diagrs., bibliog. 10*s* 6*d*. *Technical report F/T198.*

C Proposes system providing uniform terminology for use when investigating cable sites. Typewriter script.

629 Transport engineering

629.13 Aeronautical engineering

COLSTON RESEARCH SOCIETY 488
Hypersonic flow: proceedings of the eleventh symposium of the Colston Research Society held in the University of Bristol, April 6th–April 8th, 1959, ed. by A. R. Collar and J. Tinkler. Butterworths Scientific, 1960. xv,432pp., illus., tables, diagrs., bibliogs. 70*s*. *Colston papers XI.*

C Topics cover experimental equipment, theoretical and experimental flow investigations, and performance aspects of hypersonic flight.

629.19 Astronautics

489
ADVANCES in the astronautical sciences; vol. 5, proceedings of the second western national meeting of the American Astronautical Society, Los Angeles, California, August 4–5, 1959. N.Y., Plenum P., 1960. viii,356pp., illus., tables, diagrs., bibliogs. $8. *American Astronautical Society publication.*

C Applies latest developments in space research to lunar and interplanetary flight. Evaluates orbits of satellite relay stations and gives probability calculations of number and distribution of satellites for global communications.

ORDWAY, F. I. 490
Advances in space science; vol. 1. N.Y., London, Academic P., 1959. xii, 412 pp., illus., tables, diagrs., bibliogs. $12; 86*s*.

C Summarizes latest knowledge and examines alternative methods of meeting requirements of trajectories, communications, power supplies, cabin systems, and human engineering.

63 AGRICULTURE

FARB, P. 491
Living earth; photographs by R. Vishniac, drawings by L. Katz. Constable, 1960. ix,178pp., illus., plates, bibliog. 21*s*.

A–C Outstanding account of biology of the soil and the lives of the varied microcosms that exist within it.

FOOD AND AGRICULTURE ORGANIZATION 492
Grasses in agriculture, by R. O. Whyte, T. R. G. Moir and J. P. Cooper. Rome, F.A.O., 1959; [London HMSO, 1960]. ix,417pp., tables, diagrs., bibliog. 22*s* 6*d*. *Agricultural studies, no. 42.*

B Worldwide survey of botany, adaptation, management, and value of cultivated grasses for grazing and conservation.

WHYTE, R. O. 493
Crop production and environment. 2nd ed. Faber, 1960. 392pp., plates, tables, diagrs., bibliog. 63*s*.

B Review of physical and chemical factors affecting plant growth and reproduction. Completely new edition, mainly concerned with research since 1946 and its practical application to economic crops.

66 CHEMICAL TECHNOLOGY

KIT, B. *and* EVERED, D. S. 494
Rocket propellant handbook. N.Y., [London], Macmillan (N.Y.), [1960]. [12],354pp., tables, bibliogs. $12.50; 87*s* 6*d*.

D Physical and chemical properties of fuels, oxidizers, and monopropellants, with tables of their heat capacities, densities, specific impulses, and performance characteristics when combined with other substances,

KUNIN, R. 495
Elements of ion exchange. N.Y., Reinhold; London, C & H, [1960]. ix,164pp., illus., tables, diagrs., bibliogs. $5.75; 46*s*.

B For the non-chemist concerned with practical application of ion-exchange processes.

MAZELEV, L. Y. 496
Borate glasses: thermochemical processes in glass formation, crystallo-optics, technology, physicochemical properties, and structure of glasses with the composition B_2O_3–Li_2O–MeO; tr. from Russian. N.Y., Consultants Bureau, 1960. [4],159pp., illus., tables, diagrs., bibliog. $10.

C Useful for coverage of great deal of Russian work not otherwise available. Russian text published by Academy of Sciences Belorussian S.S.R. Press, Minsk, 1958.

REEVES, E. A., *ed.* 497
The uses of electricity in the oil industry: a survey introduced by F. N. Beaumont. Benn, 1960. [4],296pp., illus., tables, diagrs. 50*s*.

B Collects a number of articles which have appeared in the *Electrical journal* during past two years.

WAGNER, H. *and* SARX, H. F. 498
Lackkunstharze [Synthetic resin lacquers]. 4th ed., rev. by B. Cyriax, W. Marquardt, H. F. Sarx, E. Schneider. Munich, Hanser, 1959. 313pp., plates, tables, diagrs., bibliog. 36*DM*.

C Covers whole range of synthetics, with section on analysis. For practical paint technologists. Completely revised.

67/68 MANUFACTURES

CABLE, J. W. 499
Vacuum processing in metalworking. N.Y., Reinhold; London, C & H, [1960]. [5],202pp., illus., tables, diagrs. $5.50; 44*s*.

A Concise descriptive guide for layman, of various vacuum processes used in industry today, including latest developments such as electron beam heating.

HORN, M. B. 500
Acrylic resins. N.Y., Reinhold; London, C & H, [1960]. vii,184pp., illus., tables, diagrs., bibliog. $4.50; 36*s*. *Reinhold plastics applications series.*

B General background on preparation and uses of acrylic resins, for technical and semi-technical readers. Broad, up-to-date review, without great detail.

SCHULZ, G. 501
Die Kunststoffe [Plastics]: eine Einführung in ihre Chemie und Technologie. Munich, Hanser, 1959. 536pp., tables, diagrs., bibliog. 49*DM*.

B Comprehensive and modern introduction to chemistry and technology of plastics. Describes polymerization, the materials themselves, processing and testing. Useful bibliography of German literature.

681 Precision Mechanisms

GUILD, J. 502
Diffraction gratings as measuring scales: practical guide to the metrological use of moiré fringes. London, N.Y., Toronto, OUP, 1960. x,211pp., illus., table, diagrs., bibliog. 35*s*; $5.60.

C Underlying principles of diffraction gratings as employed for taking fine measurements thoroughly explained. Valuable source for engineers and scientists requiring measurements unobtainable by ordinary methods.

HOGBEN, L. *and* CROSS, K. W. 503
Design of documents: a study of mechanical aids in field enquiries. Macdonald & Evans, 1960. vii,79pp., plates, tables, diagrs. 35*s*.

C Medical statisticians explain design of punched cards for field investigations.

Publishers

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A & U	Allen & Unwin
B & S	Bailey & Swinfen
C & H	Chapman and Hall
CUP	Cambridge University Press
EUP	English Universities Press
HMSO	Her Majesty's Stationery Office
McG-H	McGraw-Hill
O & B	Oliver and Boyd
OUP	Oxford University Press
R & KP	Routledge & Kegan Paul
ULP	University of London Press

Subject Index

REFERENCE IS TO UDC NUMBER

Aeronautical engineering 629.13
Agriculture 63
Applied sciences 6
Astronautics 629.19

Botany 58

Chemical technology 66
Chemistry 54
Civil engineering 624

Education 37
Electrical engineering 621.3
Engineering 62

Geology 55

Manufactures 67/68
Mathematics 51
Mechanical engineering 621
Medical sciences 61

Natural sciences 5
Nuclear physics 539.1

Physics 53
Precision mechanisms 681

Social sciences 3

Transport engineering 629

Author or Title Index

Abelson, D., *ed.* 470
Adler, R. B., 454
Advances in cryogenic engineering, 453
Advances in the astronautical sciences, 489
Allis, W. P., *ed.* 461
American Astronautical Society, 489
American Educational Research Association, 445

Bayliss, L. E., 477
Beckerley, J. G., *ed.*, 461
Bell, R. P., 462
Berthelot, R. Langlois-, 484
Braddick, H. J. J., 463
Brooks, R. V., *ed.* 470
Buzzati-Traverso, A. A., *ed.* 464

Cable, J. W., 499
Carozzi, A. V., 473
Chu, L. J., 454
Clarke, H. M., *tr.* 484
Collar, A. R., *ed.* 488
Colston Research Society, 488
Cooper, J. P., 492
Cross, K. W., 503
Cyriax, B., *rev.* 498

Daykin, P. W., 478
Désirant, M., *ed.* 460
Dimond, A. E., *ed.* 476

Electrochemical Society, 472
Encyclopædia of educational research, 445
Esau, K., 475
Evered, D. S., 494

Fano, R. M., 454
Farb, P., 491
Fernilius, W. C., *ed.* 466
Food and Agriculture Organization, 492
Frenkiel, F. N., *ed.* 479
Frontiers of numerical mathematics, 446
Fuchs, L., 447

Great Britain. Ministry of Education, 444

Guild, J., 502

Halmos, P. R., *ed.* 451
Harris, C. W., *ed.* 445
Hartley, E. M., 448
Harvey lectures, The, 480
Hawthorne, W. R., *ed.* 481
Heine, V., 455
Heslop, R. B., 465
Hogben, L., 503
Horn, M. B., 500
Horsfall, J. G., *ed.* 476

International Union of Geodesy and Geophysics, 479
International Union of Pure and Applied Physics, 460
Ipsen, D. C., 456

Jacob, F., 480
Jones, D. H., *tr.* 486
Jonscher, A. K., 483

Kármán, T. von, *ed.* 481
Katz, L., *ill.* 491
Kelley, J. L., *ed.* 451
Kit, B., 494
Kunin, R., 495

Laitinen, H. A., 466
Lance, G. N., 449
Landsberg, H. E., *ed.* 479
Langlois-Berthelot, R., 484
Lederer, M., *ed.* 467
Lewis, F. A., 471
Lewis, P. R., 442
Liba, M. R., *ed.* 445
Low, W., 457

Manske, R. H. F., *ed.* 468
Marquardt, W., *rev.* 498
Mathematics Research Center, 446
Mazelev, L. Y., 496
Mendelssohn, K., *ed.* 458
Michiels, J. L., *ed.* 460
Mieghem, J. Van, *ed.* 479
Miller, A. R., *rev.* 459
Ministry of Education, 444
Moir, T. R. G., 492
Morse, M., *ed.* 450

National Bureau of Standards, 446

Nevanlinna, R., 450
New York Academy of Medicine, 480

Olson, W. T., *ed.* 481
Ordway, F. I., 490

Popják, G., *ed.* 469

Quantitative paper chromatography of steroids, 470

Reeves, E. A., *ed.* 497
Richardson, J. H., 443
Roberts, J. K., 459
Robinson, P. L., 465
Runcorn, S. K., *ed.* 474

Sarx, H. F., 498
Schneider, E., *rev.* 498
Schofield, A. N., *tr.* 486
Schulz, G., 501
Seitz, F., *ed.* 457
Sheppard, P., *ed.* 479
Sneddon, I. N., *ed.* 447, 455
Society for Endocrinology, 470
Sokolovski, V. V., 486
Solid state physics in electronics and telecommunications, 460
Suppes, P., 451

Taylor, C. F., 482
Timmerhaus, K. D., *ed.* 453
Tinkler, J., *ed.* 488
Traverso, A. A. Buzzati-, 464
Tucker, A. W., *ed.* 450
Turnbull, D., *ed.* 457

Ubbelohde, A. R., 471
Ulam, S., *ed.* 447, 455

Vajda, S., 452
Van Mieghem, J., *ed.* 479
Vanner, M. J., 487
Vishniac, R., *ill.* 491
von Kármán, T., *ed.* 481

Wagner, H., 498
Welsby, V. G., 485
Westbrook, J. H., *ed.* 472
Whyte, R. O., 492–3

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Aslib Book List

VOLUME 25 . NUMBER 9

01 BIBLIOGRAPHY

BIRD, M. C., *ed.* 504
The international guide to literary and art periodicals, 1960. Villiers, [1960]. 91pp. 5s.
D The first issue of an annual compilation listing the 'little magazines' of literature and art, chiefly American.

3 SOCIAL SCIENCES

33 ECONOMICS

COMMONWEALTH ECONOMIC COMMITTEE. *Intelligence Branch* 505
Industrial fibres: a review of production, trade and consumption relating to cotton, wool, silk, flax, jute, sisal and other hemps, mohair, coir, kapok, rayon and other man-made fibres. HMSO, 1960. iv,236pp., tables. 10*s*. *Commodity series.*
D

SALTER, W. E. G. 506
Productivity and technical change. CUP, 1960. xi,198pp., tables, diagrs. 22*s* 6*d*. *Cambridge. University. Department of Applied Economics. Monographs, no. 6.*
C

37 EDUCATION

NEW EDUCATION FELLOWSHIP 507
Approaches to science in the primary school, ed. for the New Education Fellowship by E. Lawrence, N. Isaacs, W. Rawson. Educational Supply Association, 1960. xiii,143pp., plates, bibliog. 10*s* 6*d*.
A Practical book for the teacher.

TANNENBAUM, H. E. *and* STILLMAN, N. 508
Science education for elementary school teachers. Englewood Cliffs (N.J.), Allyn & Bacon; London, Prentice-Hall, 1960. xiii,339pp., plates, diagrs. $5.95; 54*s*.
B Links science teaching with child development.

5 NATURAL SCIENCES

51 MATHEMATICS

AHLFORS, L. V. *and* SARIO, L. 509
Riemann surfaces. Princeton (N.J.), Princeton U.P.; [London, OUP], 1960. xi,382pp., diagrs., bibliog. $10; 80*s*. *Princeton mathematical series, eds. M. Morse and A. W. Tucker, no. 26.*
C Expert introduction for intending specialist, based on topological foundations. Assumes some knowledge of modern algebra and Hilbert space, but is otherwise self-contained.

BLAKEY, J. *and* HUTTON, M. 510
Engineering mathematics. Blackie, 1960. [6],603pp., tables, diagrs. 40*s*.
B Dr Blakey's *University mathematics* adapted for engineering students by replacement of some geometry by chapters on numerical solution of equations, statistics, relaxation methods, and the Laplace transform.

DAY, W. D. 511
Introduction to Laplace transforms for radio and electronic engineers. London, Iliffe for *Wireless World*; N.Y., Interscience, 1960. vii,183pp., tables, diagrs., bibliog. 32*s* 6*d*; $4.55.

B Student's text providing approach to subject via solution of second-order equations. Examples and exercises.

FINKBEINER, D. T. 512
Introduction to matrices and linear transformations. San Francisco, London, Freeman, [1960]. vii,248pp., tables, diagrs., bibliog. $6.50; 38*s*. *Series of undergraduate books in mathematics, ed. R. A. Rosenbaum.*

B Axiomatic account of elements of linear algebra, with emphasis on matrices. Earlier chapters have numerous illustrative examples and exercises.

HALMOS, P. R. 513
Naive set theory. Princeton (N.J.), [etc.], London, Van Nostrand, 1960. vii, 104pp. $3.50; 26*s* 6*d*. *University series in undergraduate mathematics, ed. by J. L. Jelley, P. R. Halmos.*

B In informal language and notation.

NIDDITCH, P. H. 514
Elementary logic of science and mathematics. University Tutorial P., 1960. vii,371pp., tables. 18*s*.

B

52 ASTRONOMY

BONDI, H. 515
Cosmology. 2nd ed. CUP, 1960. [5],182pp., tables, diagrs., bibliog. 30*s*. *Cambridge monographs on physics, gen. eds N. Feather and D. Shoenberg.*

B Clear and concentrated work of interest to all with elementary knowledge of physics. First published 1952, now takes account of recent developments and their effect on existing theories.

53 PHYSICS

BERGEN, J. T., *ed.* 516
Viscoelasticity—phenomenological aspects: a symposium sponsored by the Armstrong Cork Company, held at its Research and Development Center, Lancaster, Pennsylvania. N.Y., London, Academic P., 1960. x,150pp., tables, diagrs., bibliogs. $6; 48*s*.

C Papers of theoretical nature and mathematical treatment, of value to research workers concerned with properties of high polymers.

HARRIS, L. B. 517
Hydromagnetic channel flows. Cambridge (Mass.), Technology P.; N.Y., [London], Wiley, [1960]. vi,90pp., tables, diagrs., bibliog. $2.75; 22*s*. *Research monographs.*

C Study of flows of electrically conducting fluids in presence of electromagnetic fields.

518
SOLID state physics in electronics and telecommunications: proceedings of an international conference held in Brussels, June 2–7, 1958, [sponsored by] International Union of Pure and Applied Physics, ed. by M. Désirant, J. L. Michiels; vol. 4, magnetic and optical properties, part 2. London, N.Y., Academic P., 1960. xvi,558–963pp., illus., tables, diagrs., bibliogs. 114*s* 6*d*; $22.

C Papers cover masers, electroluminescence, phosphors, photosensitive materials, nuclear irradiation, and radiation damage. In English, French, and German.

539.1 Nuclear physics

LEVINGER, J. S. 519
Nuclear photo-disintegration. OUP, 1960. [6],144pp., diagrs., bibliog. 15*s*. *Oxford library of the physical sciences.*

B Authoritative account of experimental quantitative data regarding photodisintegration of several light nuclei, theoretical treatment of these results, and discussion of them in light of several current theories of nuclear stability.

54 CHEMISTRY

FAIRES, R. A. *and* PARKS, B. H. 520
Radioisotope laboratory techniques, with a foreword by H. Seligman. 2nd ed. Newnes, 1960. xii,244pp., plates, tables, diagrs., bibliogs. 25*s*. *Newnes practical science books, ed. by J. G. Cook.*

B Brought up to date by small additions throughout and a largely rewritten chapter on health physics. By members of staff of U.K.A.E.A. Isotope School.

521
GAS chromatography abstracts 1959, comp. and ed. by C. E. H. Knapman, assistant ed. C. G. Scott, sponsored by the Gas Chromatography Discussion Group (associated with the Hydrocarbon Research Group of the Institute of Petroleum). Butterworths Scientific, 1960. ix,164pp. 42*s*.

C Second compilation in this series, containing 717 indicative abstracts culled from extensive coverage of journals.

HANAHAN, D. J. *and others* 522
Lipide chemistry, by D. J. Hanahan, F. R. N. Gurd, and I. Zabin. N.Y., London, Wiley, [1960]. ix,330pp., illus., tables, diagrs. $10; 80*s*.

B Advanced textbook providing useful review of progress made during past ten years. Based in part on graduate course at University of Washington.

STACEY, M. *and* BARKER, S. A. 523
Polysaccharides of micro-organisms. Oxford, Clarendon P., 1960. vii,228pp., plates, tables, diagrs., bibliogs. 30*s*.

C Includes methods of preparing polysaccharides in pure form and determining their chemical structure.

55 GEOLOGY

ECKART, C. 524
Hydrodynamics of oceans and atmospheres. Oxford, [etc.], N.Y., Paris, Pergamon P., 1960. xi,290pp., tables, diagrs. 63*s*; $9.

C

EMERY, K. O. 525
The sea off California: a modern habitat of petroleum. N.Y., London, Wiley, [1960]. xi,366pp., illus., tables, diagrs., bibliog. $12.50; 100*s*.

C Interesting, authoritative, and most comprehensive account of geology, marine biology, geophysics, and physical oceanography of region.

551.5 Meteorology

526
DYNAMICS of climate: the proceedings of a conference on the application of numerical integration techniques to the problem of general circulation, held October 26–28, 1955, [sponsored by Institute of Advanced Study and U.S. Air Force Geophysics Research Directorate, ed. by R. L. Pfeffer]. Oxford, [etc.], N.Y., Paris, Pergamon P., 1960. xv,137pp., plates, diagrs., bibliog. 35*s*; $6.50.

C

GEORGE, J. J. 527
Weather forecasting for aeronautics. N.Y., London, Academic P., 1960. ix, 673pp., tables, diagrs., bibliog. $15; 107*s* 6*d*.

B A pilot or practising forecaster will find the necessary aids and methods, including use of radar, for predicting weather. Excellent charts and diagrams.

58 BOTANY

FÆGRI, K. *and others, eds* 528
Maps of distribution of Norwegian vascular plants; vol. 1, the distribution of coast plants. Oslo, Oslo U.P., 1959. liv,134pp., plates. 75*kr*.

C Each plant mapped separately, with notes giving first Norwegian records, distribution, altitude limits, and habitat. Scale of maps is about 1:7,000,000.

VAN DER WIJK, R. *and others, eds* 529
Index muscorum: an up-to-date Index Kewensis for the musci; vol. 1. Utrecht, International Bureau for Plant Taxonomy, 1959. xxviii,548pp., 57*fl* (30.40*fl* to members). *Regnum vegetabile, no. 17.*

D This work will consist of five volumes. Entry is alphabetically by genus, the present volume covering A–C.

59 ZOOLOGY

GOSLINE, W. A. *and* BROCK, V. E. 530
Handbook of Hawaiian fishes. Honolulu, University of Hawaii P., 1960. ix,372pp., illus. $11.
D

SOCIETY FOR ENDOCRINOLOGY 531
Sex differentiation and development: proceedings of a symposium held at the Royal Society of Medicine, Wimpole Street, London, on 10 and 11 April 1958, ed. on behalf of the Society for Endocrinology by C. R. Austin. Cambridge, CUP, 1960. x,198pp., illus., plates, tables, diagrs., bibliog. 45*s*. *Memoirs of the Society for Endocrinology, no. 7.*
C

WATERMAN, T. H. 532
The physiology of crustacea; vol. 1, metabolism and growth. N.Y., London, Academic P., 1960. xvii,670pp., illus. $22; 157*s* 6*d*.
C

6 APPLIED SCIENCES

62 ENGINEERING

620.1 Materials testing

AMERICAN SOCIETY FOR TESTING MATERIALS 533
Symposium on electron metallography, presented at the 62nd annual meeting, Atlantic City, N.J., June 23, 1959. Philadelphia (Pa), the Society, 1960. 128pp., illus. $4.25 ($3.40 to members). *ASTM special technical publication, no. 262.*
C

621 Mechanical engineering

JERGER, J. J. 534
Systems preliminary design. Princeton (N.J.), [etc.], London, Van Nostrand, [1960]. xii,625pp., tables, diagrs., bibliogs. $14.75; 110*s*. *Principles of guided missile design, ed. by G. Merrill.*

C Comprehensive analysis of kinematics of homing, beam riding, and command guidance systems to establish system design requirements, including servomechanisms analysis, structures, heat transfer, and reliability.

621.039 Nuclear engineering

HITCHCOCK, A. 535
Nuclear reactor stability. Temple P., 1960. x,61pp., tables, diagrs., bibliog. 12*s* 6*d*. Nuclear Engineering *monographs*.

B Explains various causes of instability in a reactor and derives, in an elementary form, stability criteria.

JACOBS, A. M. *and others* 536
Basic principles of nuclear science and reactors, by A. M. Jacobs, D. E. Kline, F. J. Remick. Princeton (N.J.), [etc.], London, Van Nostrand, [1960]. viii, 262pp., illus., tables, diagrs. $6.50; 49*s*. *Van Nostrand nuclear science series, eds D. W. Lillie, F. R. Ward.*

B Descriptive treatment of theory of fission chain reactions and physics of nuclear reactors, for engineering and science students and reactor design engineers requiring only qualitative treatment of relevant theory.

621.3 Electrical engineering

DÉSIRANT, M. *and* MICHIELS, J. L., *eds* 537
Electromagnetic wave propagation: international conference sponsored by the Postal and Telecommunications Group of the Brussels Universal Exhibition. London, N.Y., Academic P., 1960. xiii,730pp., illus., tables, diagrs., bibliogs. 157*s*; $22.

C About fifty papers, a few in German and French.

KLOEFFLER, R. G. 538
Industrial electronics and control. 2nd ed. N.Y., Wiley; London, C & H, [1960]. ix,540pp., illus., tables, diagrs., bibliogs. $10; 80*s*.

B College text on theory and industrial applications. Approach is now via solid state theory. New material on semiconductors, electronic devices, servomechanisms, computers, and electronic measurements.

LURCH, E. N. 539
Fundamentals of electronics. N.Y., Wiley; London, C & H, [1960]. xiv,631pp., illus., tables, diagrs., bibliogs. $8.25; 66*s*.

B Presentation of electronic engineering for students entering the industry. Emphasis on semiconductors. Good illustrations and presentation.

540
PHOTO-ELECTRONIC image devices: proceedings of a symposium held at London, September 3–5, 1958, ed. by J. D. McGee and W. L. Wilcock. N.Y., London, Academic P., 1960. xii,397pp., illus., tables, diagrs., bibliogs. $12; 86*s*. *Advances in electronics and electron physics, ed. by L. Marton and others; vol. XII.*

C Thirty papers (two in French) on photo-electronic image tubes and related devices, with special reference to television, astronomy, medical research, and nuclear physics.

ROSSBERG, E. A. *and* KORTA, H. E. 541
Teleprinter switching; tr. from German by J. G. Thieme and H. M. Seyringer. Princeton (N.J.), [etc.], London, Van Nostrand, [1960]. 351pp., illus., tables, diagrs., bibliog. 70*s*.

C Only collected work giving details of teleprinter switching arrangements throughout the world. Well translated.

624 Civil engineering

GILL, H. R. 542
Concrete formwork designer's handbook. Concrete Publications, 1960. vi, 153pp., tables, diagrs., bibliog. 15*s*. *Concrete series*.

B Structural design of timber, plywood, and steel shuttering, using simplified formulae and nomograms.

PRESTON, H. K. 543
Practical prestressed concrete. N.Y., [etc.], London, McG-H, 1960. xi,340pp., illus., tables, diagrs. $11.50; 89*s*.

B Basic principles, design procedures, and numerical examples, based on the ACI–ASCE recommendations.

625 Rail and Road engineering

ANDREWS, W. P. 544
Concrete and soil-cement roads. Contractors Record, 1960. xiv,157pp., illus., tables, diagrs., bibliog. 30*s*. *Concrete library, ed. J. Singleton-Green.*

A and C Well-illustrated review of main problems facing practical road engineers and designers.

BOTZOW, H. S. D. 545
Monorails. N.Y., Simmons-Boardman, 1960. vii,104pp., plates. $3.95.

A

HERBERT, J., *ed.* 546
Chemins de fer: glossaire des termes ferroviaires français/anglais/allemand/espagnol/italien/suédois, établi par le Bureau International de Documentation des Chemins de Fer. Amsterdam, London, N.Y., [etc.], Elsevier, 1960. [5], 413pp. 16*fl*; 30*s*. *Glossaria interpretum, ed. under the auspices of Universities of Geneva, Mainz, and Georgetown.*

D Equivalents of 1995 terms arranged alphabetically in French, with indexes in other languages. Differences between English and American usage are noted.

628 Public Health engineering

547
WASTE treatment: proceedings of the second symposium on the treatment of waste waters organized by the Public Health Engineering Section, Department of Civil Engineering, University of Durham, King's College, Newcastle upon Tyne, 14–19 September, 1959, ed. by P. C. G. Isaac. Oxford, London, Pergamon P., 1960. xii,477pp., illus., plates, tables, diagrs., bibliog. 84*s*.

C Papers on biological treatment of waste waters and disposal of solids removed from liquid wastes.

629 Transport engineering

CROUCH, H. F. 548
Nuclear ship propulsion. Cambridge (Md), Cornell Maritime P.; [London, Putnam], 1960. 347pp., illus., bibliog. $10; 87*s* 6*d*.

A–B Introduction to the theory and practice of nuclear propulsion, for marine engineers, ship designers, and general readers.

PARKINSON, J. R. 549
The economics of shipbuilding in the United Kingdom. CUP, 1960. xi,227pp., plates, tables, diagrs. 40*s*. *Glasgow. University. Department of Social and Economic Research. Social and economic studies, no. 6.*

B

63 AGRICULTURE

SMITH, F. G. 550
Beekeeping in the tropics. Longmans, 1960. xvii,265pp., plates, tables, diagrs., bibliogs. 45*s*. [Tropical agriculture series.]

C First book on subject in English, by Head of Beekeeping Division, Forest Department, Tanganyika.

65 COMMERCE. ORGANIZATION. COMMUNICATIONS

656 Transport

BOWN, A. H. J. *and* DOVE, C. A. 551
Port operation and administration. 2nd ed., rev. by E. S. Tooth. C & H for the Dock and Harbour Authority, 1960. xx,364pp., illus., diagrs., bibliog. 45*s*.
B Previous edition 1950.

DAVIES, E., *ed.* 552
Roads and their traffic. Blackie, 1960. viii,352pp., illus., tables, diagrs., bibliogs. 35*s*.
A–B Introduction to traffic engineering for layman and student. Deals with motorways, traffic control, parking, street lighting, road safety, and road and traffic research.

657 Accountancy

WHELDON, H. J. 553
Cost accounting and costing methods. 10th ed., rev. by L. W. J. Owler and J. L. Brown. Macdonald & Evans, 1960. xiii,546pp., illus., tables, diagrs. 26*s*.
B Assumes no previous knowledge, but leads on to advanced aspects including mechanized accounting and use of punched cards. Previous edition 1948, completely revised.

66 CHEMICAL TECHNOLOGY

BARKER, T. C. 554
Pilkington Brothers and the glass industry. A & U, 1960. 296pp., plates, table, diagrs. 40*s*.
A Describes growth of this family firm, with emphasis on nineteenth-century developments.

LOCKWOOD, *Sir* J. 555
Flour milling. 4th ed. Stockport, Simon; Liverpool, Northern Publishing Co., 1960. 526pp., illus., plates, tables, diagrs., bibliog. 5 *gns*.
B Revised edition of standard work.

SOCIETY FOR INDUSTRIAL MICROBIOLOGY 556
Developments in industrial microbiology; vol. 1, proceedings of the sixteenth general meeting of the Society for Industrial Microbiology, held at State College, Pennsylvania, August 30–September 3, 1959, [ed. by B. M. Miller]. N.Y., Plenum P., 1960. ix,267pp., illus., tables, diagrs., bibliogs. $7.50. *Society for Industrial Microbiology publication.*
C First volume of new annual series intended to assist workers to follow progress in this field.

SOCIETY OF CHEMICAL INDUSTRY 557
The quality control of food. The Society, 1960. 176pp., illus. 20*s*. *Monographs no. 8.*
B–C Fifteen papers and discussions thereon, given at a symposium in London, October 1957.

UMBREIT, W. W., *ed.* 558
Advances in applied microbiology; vol. 2. N.Y., London, Academic P., 1960. xii,384pp., illus., tables, diagrs., bibliogs. $12; 86*s*.
C Useful survey by American writers of current developments in selected fields of applied microbiology, including papers given at a recent symposium on engineering advances in fermentation practice.

67/68 MANUFACTURES

HARDMAN, H. *and* COLE, E. J. 559
Paper-making practice. Manchester, Manchester U.P., 1960. xi,334pp., tables, diagrs., bibliog. 45*s*.

B Collection of technical articles from *The paper maker*. Despite unevenness, generally useful and well presented.

JACOBI, H. R. 560
Grundlagen der Extrudertechnik [Fundamentals of extrusion technique]. Munich, Hanser, 1960. 137pp., diagrs., bibliog. 24DM. *Extrusion von Kunststoffen* [*Extrusion of plastics*].

C Theoretical and mathematical treatment of conditions developed in different extruders using various types of screws.

PAYNE, A. R. *and* SCOTT, J. R. 561
Engineering design with rubber: the properties, testing and design of rubber as an engineering material. London, Maclaren; N.Y., Interscience, 1960. ix,256pp. plates, tables, diagrs., bibliogs. 50*s*; $8.

C Aims to bridge gap between rubber technologist and engineer by examining characteristics and potentialities of rubber in engineering.

562
PLASTICS progress 1959: papers presented at the international plastics convention 1959, ed. by P. Morgan. Iliffe for *British plastics*, 1960. xii,216pp., illus., tables, diagrs., bibliogs. 55*s*.

C Thirteen lectures on polypropylene, materials developments, developments in glass-reinforced plastics, expanded plastics, and extrusion.

RENFREW, A. *and* MORGAN, P., *eds* 563
Polythene: the technology and uses of ethylene polymers. 2nd ed. London, Iliffe; N.Y., Interscience, 1960. xxiii,781pp., plates, tables, diagrs., bibliog. 165*s*; $25.75.

B Additions to 1957 edition include low-pressure processes, theory of catalytic polymerization, copolymers, recent processing techniques and applications. Statistics dated 1 January 1960.

69 BUILDING

BARRY, R. 564
The construction of buildings; vol. 2, masonry, windows, sills, doors, partitions, fireplaces & flues, stairs, internal finishes, & external renderings. Crosby Lockwood, 1960. iv,140pp., diagrs., bibliogs. 20*s* (25*s* cloth).

B Continues study of some traditional building materials and methods in everyday use. Reference to British Standards, codes of practice, and other authoritative sources.

INSTITUTION OF HEATING AND VENTILATING ENGINEERS 565
A guide to current practice, 1959. 2nd ed. rev. The Institution, 1959. [48], 600,xlviiipp., tables, diagrs., bibliog. 63*s*.

C Previous edition 1955. New sections on meteorological data, air-conditioning design data, and off-peak heating. Subject and author index to *Proceedings* and *Journal* of the Institution, 1899–1959.

Publishers

THE FOLLOWING ABBREVIATIONS ARE USED IN ASLIB BOOK LIST

A & U	Allen & Unwin
B & S	Bailey & Swinfen
C & H	Chapman and Hall
CUP	Cambridge University Press
EUP	English Universities Press
HMSO	Her Majesty's Stationery Office
McG-H	McGraw-Hill
O & B	Oliver and Boyd
OUP	Oxford University Press
R & KP	Routledge & Kegan Paul
ULP	University of London Press

Correction

Vol.25 no.8 entry 452. For 'Replaces author's earlier book on same subject' substitute 'Similar in extent to author's earlier book on same subject, but simpler, and suitable for beginners with school mathematics only'.

Subject Index

REFERENCE IS TO UDC NUMBER

Accountancy 657
Agriculture 63
Applied sciences 6
Astronomy 52

Bibliography 01
Botany 58
Building 69

Chemical technology 66
Chemistry 54
Civil engineering 624
Commerce. Organization. Communications 65

Economics 33
Education 37
Electrical engineering 621.3
Engineering 62

Geology 55

Manufactures 67/68
Materials testing 620.1
Mathematics 51
Mechanical engineering 621
Meteorology 551.5

Natural sciences 5
Nuclear engineering 621.039

Nuclear physics 539.1

Physics 53
Public health engineering 628

Rail and road engineering 625

Social sciences 3

Transport 656
Transport engineering 629

Zoology 59

Author or Title Index

Ahlfors, L. V., 509
American Society for Testing Materials, 533
Andrews, W. P., 544
Armstrong Cork Company, 516
Austin, C. R., *ed.* 531

Barker, S. A., 523
Barker, T. C., 554
Barry, R., 564
Bergen, J. T., *ed.* 516
Bird, M. C., *ed.* 504
Blakey, J., 510
Bondi, H., 515
Botzow, H. S. D., 545
Bown, A. H. J., 551
Brock, V. E., 530
Brown, J. L., *ed.* 553

Cole, E. J., 559
Commonwealth Economic Committee, 505
Cook, J. G., *ed.* 520
Crouch, H. F., 548

Davies, E., *ed.* 552
Day, W. D., 511
Désirant, M., *ed.* 518, 537
Dove, C. A., 551
Durham University. Dept of Civil Engineering. Public Health Engineering Section, 547
Dynamics of climate, 526

Eckart, C., 524
Emery, K. O., 525

Fægri, K., *ed.* 528
Faires, R. A., 520
Featler, N., *ed.* 515
Finkbeiner, D. T., 512

Gas chromatography abstracts, 521
Gas Chromatography Discussion Group, 521
George, J. J., 527
Gill, H. R., 542
Gosline, W. A., 530
Green, J. Singleton-, *ed.* 544
Gurd, F. R. N., 522

Halmos, P. R., 513
Hanahan, D. J., 522
Hardman, H., 559
Harris, L. B., 517
Herbert, J., *ed.* 546
Hitchcock, A., 535
Hutton, M., 510

Institute of Advanced Study, 526
Institute of Petroleum, Hydrocarbon Research Group, 521
Institution of Heating and Ventilating Engineers, 565
International Union of Pure and Applied Physics, 518
Isaac, P. C. G., *ed.* 547
Isaacs, N., *ed.* 507

Jacobi, H. R., 560
Jacobs, A. M., 536
Jelley, J. L., *ed.* 513
Jerger, J. J., 534

Kline, D. E., 536
Kloeffler, R. G., 538
Knapman, C. E. H., *comp.* 521
Korta, H. E., 541

Lawrence, E., *ed.* 507
Levinger, J. S., 519
Lillie, D. W., *ed.* 536
Lockwood, *Sir* J., 555
Lurch, E. N., 539

McGee, J. D., *ed.* 540
Marton, L., *ed.* 540
Merrill, G., *ed.* 534
Michiels, J. L., *ed.* 518, 537
Miller, B. M., *ed.* 556
Morgan, P., *ed.* 562–3
Morse, M., *ed.* 509

New Education Fellowship, 507
Nidditch, P. H., 514

Owler, L. W. J., *ed.* 553

Parkinson, J. R., 549

Parks, B. H., 520
Payne, A. R., 561
Pfeffer, R. L., *ed.* 526
Photo-electric image devices, 540
Plastics progress 1959, 562
Preston, H. K., 543

Rawson, W., *ed.* 507
Remick, F. J., 536
Renfrew, A., *ed.* 563
Rosenbaum, R. A., *ed.* 512
Rossberg, E. A., 541

Salter, W. E. G., 506
Sario, L., 509
Scott, C. G., *ed.* 521
Scott, J. R., 561
Seyringer, H. M., *tr.* 541
Shoenberg, D., *ed.* 515
Singleton-Green, J., *ed.* 544
Smith, F. G., 550
Society for Endocrinology, 531
Society for Industrial Microbiology, 556
Society of Chemical Industry, 557
Solid state physics in electronics and telecommunications, 518
Stacey, M., 523
Stillman, N., 508

Tannenbaum, H. E., 508
Thieme, J. G., *tr.* 541
Tooth, E. S., *ed.* 551
Tucker, A. W., *ed.* 509

U.S. Air Force Geophysics Research Directorate, 526
Umbreit, W. W., *ed.* 558

van der Wijk, R., *ed.* 529

Ward, F. R., *ed.* 536
Waste treatment, 547
Waterman, T. H., 532
Wheldon, H. J., 553
Wijk, R. van der, *ed.* 529
Wilcock, W. L., *ed.* 540

Zabin, I., 522

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06 ASSOCIATIONS. INSTITUTIONS. MUSEUMS

BARNABY, K. C. 566

The Institution of Naval Architects 1860–1960: an historical survey of the Institution's transactions and activities over 100 years. The Royal Institution of Naval Architects in association with A & U, 1960. 645pp., illus., plates, tables, diagrs. 5 *gns.*

B Official centenary history, with copious appendixes and indexes. Well illustrated.

3 SOCIAL SCIENCES
33 ECONOMICS

WILLIAMS, H. T., *ed.* 567

Principles for British agricultural policy: a study sponsored by the Nuffield Foundation. OUP for Nuffield Foundation, 1960. xiv,317pp., tables, diagrs. 18*s.*

A Collects and discusses the evidence relating to all conditions affecting the industry.

37 EDUCATION

ASH, B. *and* RAPAPORT, B. 568

Skills in the junior school. Methuen, 1960. 158pp. 12*s* 6*d.*

A Concerned with social, physical, and intellectual skills of children, and the skills needed by young teachers.

569

THE YEAR book of education; 1960: communication media and the school, ed. by G. Z. F. Bereday, J. A. Lauwerys. Evans Bros. in association with University of London Institute of Education, and Teachers College, Columbia University, [1960]. xiv,592pp., illus., tables, bibliog. 3 *gns.*

D International survey of new mass media of communication and their role in education.

5 NATURAL SCIENCES

HASLETT, A. W. *and* ST JOHN, J. 570

Science survey 1. Vista Books, 1960. 360pp., plates, tables, diagrs., bibliogs. 25*s.*

A Well-written authoritative essays on selected topics, presented in form and style suitable for the informed layman.

51 MATHEMATICS

BOAS, R. P. 571

A primer of real functions. N.Y., [London], distributed by Wiley for the Mathematical Association of America, [1960]. xiii,189pp., diagrs. $4; 32*s.* *Carus mathematical monographs, no. 13.*

B Survey of fundamental concepts and properties.

MURPHY, G. M. 572

Ordinary differential equations and their solutions. Princeton (N.J.), [etc.], London, Van Nostrand, [1960]. ix,451pp., tables, bibliog. $8.50; 64*s.*

C Part one is an epitome of methods of solution, part two a compendium of solutions to about 2,000 equations, rather on the lines of Kamke's treatise, making a useful work of reference for the scientist and technologist.

RALSTON, A. *and* WILF, H. S., *eds* 573
Mathematical methods for digital computers. N.Y., [London], Wiley, [1960]. xi,293pp., tables, diagrs. $9; 72*s*.

C A team from universities and industry have brought together much useful information on the problems likely to be solved by computers.

SAAD, L. G. *and* STORER, W. O. 574
Understanding in mathematics. O & B for University of Birmingham Institute of Education, 1960. vii,182pp., tables, diagrs., bibliog. 15*s*. *Educational monographs, [ed. by E. A. Peel and G. E. R. Burroughs], no. 3.*

B Analysis of responses of over 1,000 grammar-school pupils to tests in arithmetic, algebra, and geometry, intended to show their understanding of mathematical concepts and processes.

53 PHYSICS

AJZENBERG-SELOVE, F., *ed.* 575
Nuclear spectroscopy; parts A and B. N.Y., London, Academic P., 1960. xxi,621pp; xvi,625–1147pp., tables, diagrs., bibliogs. 2v. $16.50; 114*s* 6*d* per volume. *Pure and applied physics: a series of monographs and text books, ed. by H. S. W. Massey; vol. 9.*

C Part A discusses current nuclear models and relevance of different types of nuclear spectroscopy. Part B deals with experimental methods. Emphasis is on material not easily found in texts, and on recent developments.

BUBE, R. H. 576
Photoconductivity of solids. N.Y., London, Wiley, [1960]. xix,461pp., tables, diagrs., bibliog. $14.75; 118*s*.

C Presents unified physical description and interpretation of subject and correlates photoconductivity and other related phenomena in insulators and semiconductors.

COXON, W. F. 577
Temperature measurement and control. Heywood, 1960. x,314pp., plates, tables, diagrs., bibliogs. 60*s*. *Physical processes in the chemical industry, gen. eds J. C. Robb and W. F. Coxon, vol. 5.*

B Useful introduction, particularly for young people entering industry who wish to get a general outline of temperature measurement and control.

GUGGENHEIM, E. A. 578
Elements of the kinetic theory of gases. Oxford, [etc.], N.Y., Paris, Pergamon P., 1960. xii,92pp., tables, diagrs., bibliogs. 17*s* 6*d*; $3. *The international encyclopedia of physical chemistry and chemical physics; topic 6, the kinetic theory of gases, ed. E. A. Guggenheim, vol. 1.*

C Concentrated and highly mathematical treatment, suitable for specialists with necessary mathematical background.

ROCARD, Y. 579
General dynamics of vibrations. Crosby Lockwood, 1960. xii,522pp., diagrs. 80*s*.

C Translation of French textbook covering vibrations in mechanical, electrical, and acoustical 'systems', generalized in treatment and with moderate standard of mathematical content.

539.1 Nuclear physics

ALLEN, W. D. 580
Neutron detection. Newnes, 1960. viii,260pp., plates, tables, diagrs., bibliog. 45*s*.

B Authoritative introductory text on reactions and instruments used and their applications, especially in spectrometry and health monitoring. Final chapter on neutron standards. Chiefly for technical students. Well documented.

HERMAN, R. *and* HOFSTADTER, R. 581
High-energy electron scattering tables. Stanford (Cal.), Stanford U.P.; [London, OUP], 1960. ix,278pp., tables, diagrs., bibliog. $7.50; 68*s*.

C Authoritative text and collection of data for nuclear models.

54 CHEMISTRY

D'EYE, R. W. M. *and* WAIT, W. 582
X-ray powder photography in inorganic chemistry, sponsored by the United Kingdom Atomic Energy Authority, Harwell. London, Butterworths Scientific; N.Y., Academic P., 1960. viii,222pp., tables, diagrs., bibliogs. 45*s*; $8.50.

B–C For chemists requiring working instruction in theory and experimental application of this technique. Expertly and concisely written, but making considerable demands on attention of reader.

EMMETT, P. H., *ed.* 583
Catalysis; vol. vii, oxidation, hydration, dehydration and cracking catalysts. N.Y., Reinhold, London, C & H, [1960]. vi,378pp., tables, diagrs., bibliogs. $13.50; 108*s*.

C Final volume of a work providing research scientists with a comprehensive source of reference.

HEFTMANN, E. *and* MOSETTIG, E. 584
Biochemistry of steroids. N.Y., Reinhold; London, C & H, [1960]. xi,231pp., table, diagrs., bibliog. $6.90; 55*s*. *Reinhold organic chemistry and biochemistry textbook series, consulting ed. C. A. VanderWerf.*

B Brief general collection of information on structure, biosynthesis, endocrinology and physiology, metabolism, structural significance, and analysis, designed to supplement the Fiesers' *Steroids*.

KRUYT, H. R. *and* OVERBEEK, J. T. G. 585
An introduction to physical chemistry for biologists and medical students, with special reference to colloid chemistry; tr. [from the Dutch] by A. J. Mee in collaboration with J. E. Spice. London, Melbourne, Toronto, Heinemann, 1960. ix,197pp., tables, diagrs., bibliog. 25*s*; $4.50.

B Concentrates on topics of special interest to biologists, such as osmosis, electrochemistry, absorption, and behaviour of colloidal systems. Translation of 15th Dutch edition.

PAULING, L. 586
The nature of the chemical bond and the structure of molecules and crystals: an introduction to modern structural chemistry. 3rd ed. Ithaca (N.Y.), Cornell U.P.; London, OUP, 1960. xx,644pp., illus., tables, diagrs. $8.85; 60*s*. *George Fisher Baker non-resident lectureship in chemistry at Cornell University.*

B Revised form of this very important book makes it particularly useful to undergraduates. Basic electronic and quantum theory now described in some detail. Fully documented. Previous edition 1940.

PIMENTEL, G. C. *and* MCCLELLAN, A. L. 587
The hydrogen bond; drawings by R. Hayward. San Francisco, London, Freeman; distributed [in U.S.A.] by Reinhold, 1960. xii,475pp., tables, diagrs., bibliog. $11.40; 82*s*. *A series of chemistry books, ed. L. Pauling.*

C For research workers. Authoritative, critical survey of physical and chemical evidence based on careful survey of the literature. Over 2,000 references prior to 1956 included and lines of future progress considered.

VICKERY, R. C. 588
The chemistry of yttrium and scandium. N.Y., Oxford, [etc.], Paris, Pergamon P., 1960. vii,123pp., plates, tables, diagrs., bibliogs. $6.30; 40*s*. *International series of monographs on inorganic chemistry, gen. eds H. Taube and A. G. Maddock; vol. 2.*

C Fully documented review of chemistry of two of the less familiar elements and their compounds. Chiefly for specialists, but valuable reference for all chemists.

55 GEOLOGY

589
SOVIET research in geophysics in English translation; vols. 1, 2, and 3. N.Y., Consultants Bureau for American Geophysical Union, [1960]. Transactions (Trudy) of the Geophysics Institute of the Academy of Sciences of the U.S.S.R. 3v.

C Vol. 1, a collection of articles on dynamic meteorology, ed. by I. A. Kibel'. [4],181pp., tables, diagrs., bibliogs. $8. Of special interest to research meteorologists concerned with problems of atmospheric heat balance, radiational heat exchange, and absorption of solar radiation.

Vol. 2, isostasy and isostatic hypotheses, by E. N. Lyustikh. [3],119pp., tables, diagrs., bibliog. $6.50. Critical review of isostatic theory, methods of studying isostasy, its relationship with geological processes and its role in geotectonics.

Vol. 3, the microstructure and macrostructure of elastic waves in one-dimensional continuous nonhomogeneous media, by B. N. Ivakin. viii,113pp., diagrs., bibliog. $6. Solutions of wave problems are obtained ingeniously, by using the theory of four-pole networks, and presented in operational form. For seismologists and exploration geophysicists.

STRAHLER, A. N. 590
Physical geography. 2nd ed. N.Y., London, Wiley, [1960]. viii,534pp., illus., tables, diagrs., bibliog. $7.50; 60*s*.

B Comprehensive, well-illustrated textbook for first-year university students. American bias noticeable in choice of examples.

57 BIOLOGY

HYNES, H. B. N. 591
The biology of polluted waters, with an intro. by F. T. K. Pentelow. Liverpool, Liverpool U.P., 1960. xiv,202pp., illus., plates, tables, diagrs., bibliog. 25*s*.

B General account of ways in which pollution affects biology of streams and lakes; includes chemical, physical, and biological effects.

577.1 Biochemistry

HARRIS, E. J. 592
Transport and accumulation in biological systems. 2nd ed. Butterworths Scientific, 1960. xi,279pp., plates, tables, diagrs., bibliogs. 50*s*.

B–C Largely rewritten to incorporate recent work. Discussion of the physical chemistry involved in transport and distribution of water and inorganic ions is followed by presentation of results obtained from a wide range of biological materials.

58 BOTANY

COMMONWEALTH MYCOLOGICAL INSTITUTE 593

Herb I.M.I. Handbook: methods in use at the Commonwealth Mycological Institute. Kew (Sy), the Institute, 1960. vi,103pp., plates, diagrs., bibliog. 12*s* 6*d*.

C Account of the work of the Institute and the methods employed, including sections on the herbarium, the culture collection, collecting fungi, and the Institute's publications.

HORSFALL, J. G. *and* DIMOND, A. E., *eds* 594

Plant pathology: an advanced treatise; vol. 3, the diseased population, epidemics and control. N.Y., London, Academic P., 1960. xiii,675pp., illus., tables, diagrs., bibliogs. $22; 157*s* 6*d*.

B–C Fourteen well-documented and authoritative reviews covering the scientific principles underlying the spread, prevention, and control of plant pathogens. Treatments for specific diseases are not given.

POLUNIN, N. 595

Introduction to plant geography and some related sciences. Longmans, 1960. xix,640pp., illus., plate, diagrs., bibliogs. 60*s*.

B Well illustrated with line drawings and photographs; annotated bibliographies.

59 ZOOLOGY

CRAMPTON, E. W. *and* LLOYD, L. E. 596

Fundamentals of nutrition; drawings by E. L. Gillespie. San Francisco, London, Freeman, [1960]. xi,494pp., tables, diagrs., bibliogs. $7.50; 50*s*. *Series of books in agricultural science; animal science, eds G. W. Salisbury and E. W. Crampton.*

B Comprehensive introduction, commendable for breadth of subject-matter and manner in which summaries simplify without loss of accuracy.

PEASE, D. C. 597

Histological techniques for electron microscopy. N.Y., London, Academic P., 1960. xii,274pp., illus., bibliogs. $7.50; 60*s*.

C Informative discussion of techniques to be mastered for successful zoological electron microscopy. Based on American practice but should prove helpful to all workers.

6 APPLIED SCIENCES
61 MEDICAL SCIENCES

COMAR, C. L. *and* BRONNER, F., *eds* 598

Mineral metabolism: an advanced treatise; vol. 1, principles, processes, and systems; part A. N.Y., London, Academic P., 1960. xv,386pp., plates, tables, diagrs., bibliogs. $14; 86*s*.

C Covers thermodynamic and cybernetic aspects controlling mineral metabolism, also chelation, compartmental analysis, ion transport, fluid dynamics, and intestinal, renal, and extrarenal absorption and excretion.

599

PHYSICS and medicine of the atmosphere and space: the proceedings of the second international symposium on the physics and medicine of the atmosphere and space held at San Antonio, Texas, November 10, 11, 12, 1959, sponsored by the School of Aviation Medicine Aerospace Medical Center (ATC), Brooks Air Force Base, Texas, arranged by Southwest Research Institute, San Antonio, Texas; eds O. O. Benson and H. Strughold. N.Y., London, Wiley, [1960]. xviii,645pp., illus., tables, diagrs., bibliogs. $12.50; 100*s*.

C Forty-four papers on biomedical problems of space flight, including nuclear and electric propulsion, timing of vehicle launching, and environments of moon and planets.

SHUTE, P. G. *and* MARYON, M. E. 600
Laboratory technique for the study of malaria; foreword by Sir G. Covell. Churchill, 1960. x,86pp., illus., tables, bibliog. 10*s* 6*d*.
B

62 ENGINEERING

621. Mechanical engineering

DRYDEN, H. L., VON KÁRMÁN, T. *and others, eds* 601
Advances in applied mechanics; vol. VI, N.Y., London, Academic P., 1960. x,294pp., illus., tables, diagrs., bibliogs. $10; 72*s*.
C Five papers by British and German experts on similarity in compressible flow, shock-waves in ducts, vortex sheets, laminar unsteady boundary layers, and gas dynamics of the boundary layer under dissociating conditions.

MONDAY, C. 602
Broaching. Brighton, Machinery, [1960]. 162pp., illus., tables, diagrs. 18*s* 6*d*. *Machinery's standard reference series.*
B Comprehensive account of process, with many examples of its application.

SHEPHERD, D. G. 603
Introduction to the gas turbine. 2nd ed. London, Constable; Bombay, Toronto, [etc.], Longmans, 1960. ix,300pp., tables, diagrs., bibliogs. 45*s*.
B As result of author's teaching experience the whole book has been rewritten to present a more basic approach, omitting some of the details included in the first edition (1949).

621.039 Nuclear engineering

HURST, R. *and others, eds* 604
Progress in nuclear energy; series IV, technology, engineering and safety; vol. 2, ed. by R. Hurst, R. N. Lyon, C. M. Nicholls. Oxford, [etc.], N.Y., Paris, Pergamon P., 1960. xvi,799,[XII]pp., plates, tables, diagrs., bibliogs. 5 *gns*; $15.
B–C Selected papers, mainly authoritative review articles, from second Geneva conference on the peaceful uses of atomic energy, 1958. Of interest to technically qualified non-specialists.

SAXE, R. F. 605
Approaches to thermonuclear power. Temple P., 1960. x,65pp., diagrs., bibliog. 12*s* 6*d*. Nuclear Engineering *monographs*.
B Discusses theoretical problems and experimental approaches made. For engineers and non-specialists.

621.3 Electrical engineering

COTTON, H. 606
Alternating current machines. 2nd ed. Cleaver-Hume P., 1960. 328pp., illus., tables, diagrs. 21*s*. *Cleaver-Hume electrical series, gen. ed. H. Cotton, no. 4.*
B Differs little from the 1952 edition, except that units are changed from c.g.s. to m.k.s. and a chapter is added on the choice of a motor. Good coverage of subject, requiring little mathematical ability.

COTTON, H. 607
Applied electricity. 5th ed. Cleaver-Hume P., 1960. xii,516pp., illus., tables, diagrs. 25*s*.
B Revised edition extending chapter on electronics and including additional examples. For students taking B.SC.(ENG.) degree and similar courses.

FITCHEN, F. C. 608
Transistor circuit analysis and design. Princeton (N.J.), [etc.], London, Van Nostrand, 1960. xi,356pp., illus., tables, diagrs., bibliogs. $7.50; 56*s*. *Van Nostrand series in electronics and communications, ed. by H. J. Reich.*

B Introductory text for electrical engineering students, relating to simpler transistor devices and semiconductor circuits. Useful also to engineers unacquainted with transistors.

622 Mining

SINCLAIR, J. 609
Winning coal. Pitman, 1960. vii,406pp., illus., tables, diagrs., bibliogs. 60*s*.

B Account of coal-face machines and explosives used in current coal-mining practice, and their application.

624 Civil engineering

PARKER, H. 610
Simplified design of reinforced concrete. 2nd ed. N.Y., Wiley; London, C & H., [1960]. xv,303pp., tables, diagrs. $6.50; 52*s*. [*Parker's simplified series.*]

C Well-produced book of great value to all designers of reinforced concrete.

627 Natural waters and channels

NICHOLL, G. W. R. 611
Survival at sea: the development, operation and design of inflatable marine lifesaving equipment. London [etc.], Adlard Coles in association with Harrap; N.Y., De Graff, 1960. x,166pp., illus., plates, tables, diagrs., bibliog. 25*s*.

A and C By international authority. For marine officers, shipowners, and naval architects, and of interest to general readers.

628 Public Health engineering

INSTITUTION OF WATER ENGINEERS *and others* 612
Approved methods of the physical and chemical examination of water: recommendations of a joint committee of representatives of the Institution of Water Engineers, the Royal Institute of Chemistry, the Society for Analytical Chemistry, and the Society for Water Treatment and Examination. [3rd ed.] rev. Institution of Water Engineers, 1960. [2],74pp. 10*s*.

B Descriptions of methods considered adequate for proper chemical control and examination of domestic water treatment processes and water supplies.

WILSON, J. R., *ed.* 613
Demineralization by electrodialysis, by the staff of the Process Development Division, National Chemical Research Laboratory, South African Council for Scientific and Industrial Research, Pretoria, South Africa. Butterworths Scientific, 1960. xv,378pp., plates, tables, diagrs., bibliog. 60*s*.

C First comprehensive review, covering all aspects of electrodialysis.

629 Transport engineering

629.13 Aeronautical engineering

WILLIAMS, D. 614
An introduction to the theory of aircraft structures. Edward Arnold, 1960. xii,448pp., tables, diagrs., bibliogs. 60*s*.

B Clear and detailed text, suitable for postgraduate engineers, giving methods of solving problems concerning beams, thin-walled structures, and dynamic loading of aircraft. Methods compatible with machine computation are emphasized.

GREAT BRITAIN. Ministry of Supply. Aeronautical Research Council 615
An investigation of the hydrodynamic stability and spray characteristics of high length/beam ratio seaplane hulls with high beam loadings, by D. M. Ridland, J. K. Friswell, and A. G. Kurn. HMSO, 1959. xii,343pp., illus., tables, diagrs. 6 *gns. Reports and memoranda, no. 3095.*

B–C Comprehensive report which in effect sums up and fittingly completes era of British work on the subject.

629.19 Astronautics

ORDWAY, F. I. 616
Advances in space science; vol. 2. N.Y., London, Academic P., 1960. xiii, 450pp., illus., tables, diagrs., bibliogs. $13; 93*s*.

C Summarizes latest developments in electrostatic and plasma propulsion, instrumentation techniques in space research, methods of attitude control and tracking artificial satellites. Provides comprehensive survey of materials for use in space.

63 AGRICULTURE

TEUSCHER, H. *and* ADLER, R. 617
The soil and its fertility, by H. Teuscher and R. Adler, with the collaboration of J. P. Seaton. N.Y., Reinhold; London, C & H, [1960]. vii,446pp., tables. $12.50; 100*s*.

B–C Describes the constituents, properties, and action of the soil in relation to the plants it produces.

636 Livestock

BELSCHNER, H. G. 618
Sheep management and diseases. 6th ed. Sydney, London, Angus & Robertson, 1959. x,814pp., illus., tables, diagrs. 90*s*. *Agricultural and livestock series.*

B Revised and enlarged edition of authoritative work previously published 1950.

65 COMMERCE. ORGANIZATION. COMMUNICATIONS

DELAVENAY, E. 619
An introduction to machine translation. T & H, [1960]. ix,144pp., diagrs., bibliog. 25*s*.

A First book to appear which is both comprehensive and within the grasp of the general reader.

66 CHEMICAL TECHNOLOGY

BERENBLUT, I. I. *and* DOWNES, A. B. 620
Tables for petroleum gas/oxygen flames: combustion products and thermodynamic properties. London, N.Y., Toronto, OUP, 1960. [4],107pp., tables, diagr., bibliog. 30*s*.

D Flame temperatures and other important data of propane, butane, propylene, butylene, and 50:50 mixtures burnt with oxygen have been calculated on an electronic computer and tabulated. Should save technologists days of tedious work.

PHILLIPS, C. J. 621
Glass: its industrial applications. N.Y., Reinhold; London, C & H, [1960]. vii,252pp., illus., diagrs., bibliog. $6.95; 56*s*.

A Treatment is semi-technical, but within this limitation remarkably thorough. For users rather than manufacturers.

Publishers

THE FOLLOWING ABBREVIATIONS ARE USED IN ASLIB BOOK LIST

A & U	Allen & Unwin
B & S	Bailey & Swinfen
C & H	Chapman and Hall
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EUP	English Universities Press
HMSO	Her Majesty's Stationery Office
McG-H	McGraw-Hill
O & B	Oliver and Boyd
OUP	Oxford University Press
R & KP	Routledge & Kegan Paul
T & H	Thames & Hudson
ULP	University of London Press

Subject Index

REFERENCE IS TO UDC NUMBER

Aeronautical engineering 629.13
Agriculture 63
Applied sciences 6
Associations. Institutions. Museums 06
Astronautics 629.19

Biochemistry 577.1
Biology 57
Botany 58

Chemical technology 66
Chemistry 54
Civil engineering 624
Commerce. Organization. Communications 65

Economics 33
Education 37
Electrical engineering 621.3
Engineering 62

Geology 55

Livestock 636

Mathematics 51
Mechanical engineering 621
Medical sciences 61
Mining 622
Natural sciences 5
Natural waters and channels 627
Nuclear engineering 621.039
Nuclear physics 539.1

Physics 53
Public Health engineering 628

Social sciences 3

Transport engineering 629

Zoology 59

Author or Title Index

Academy of Sciences of the U.S.S.R. Geophysics Institute, 589
Adler, R., 617
Aeronautical Research Council, 615
Ajzenberg-Selove, F., *ed.* 575
Allen, W. D., 580
Ash, B., 568

Barnaby, K. C., 566
Belschner, H. G., 618
Benson, O. O., *ed.* 599
Bereday, G. Z. F., *ed.* 569
Berenblut, I. I., 620
Boas, R. P., 571
Bronner, F., *ed.* 598
Bube, R. H., 576
Burroughs, G. E. R., *ed.* 574

Comar, C. L., *ed.* 598
Commonwealth Mycological Institute, 593
Cotton, H., 606–7
Council for Scientific and Industrial Research, 613
Coxon, W. F., 577
Crampton, E. W., 596

Delavenay, E., 619
D'Eye, R. W. M., 582
Dimond, A. E., *ed.* 594
Downes, A. B., 620
Dryden, H. L., *ed.* 601

Emmett, P. H., *ed.* 583

Fitchen, F. C., 608
Friswell, J. K., 615

Gillespie, E. L., *ill.* 596
Great Britain. Ministry of Supply. Aeronautical Research Council, 615
Guggenheim, E. A., 578

Harris, E. J., 592
Haslett, A. W., 570
Heftmann, E., 584
Herman, R., 581
Hofstadter, R., 581
Horsfall, J. G., *ed.* 594
Hurst, R., *ed.* 604
Hynes, H. B. N., 591

Institution of Water Engineers, 612
Ivakin, B. N., 589

Kármán, T. von, *ed.* 601
Kibel', I. A., *ed.* 589
Kruyt, H. R., 585
Kurn, A. G., 615

Lauwerys, J. A., *ed.* 569
Lloyd, L. E., 596
Lyon, R. N., *ed.* 604
Lyustikh, E. N., 589

Maddock, A. G., *ed.* 588
Maryon, M. E., 600
Massey, H. S. W., *ed.* 575
McClellan, A. L., 587
Mee, A. J., *tr.* 585
Ministry of Supply, 615
Monday, C., 602
Mosettig, E., 584
Murphy, G. M., 572

Nicholl, G. W. R., 611
Nicholls, C. M., *ed.* 604
Nuffield Foundation, 567

Ordway, F. I., 616
Overbeek, J. T. G., 585

Parker, H., 610
Pauling, L., 586, *ed.* 587
Pease, D. C., 597
Peel, E. A., *ed.* 574
Phillips, C. J., 621
Physics and medicine of the atmosphere and space, 599
Pimentel, G. C., 587
Polunin, N., 595

Ralston, A., *ed.* 573
Rapaport, B., 568
Reich, H. J., *ed.* 608
Ridland, D. M., 615
Robb, J. C., *ed.* 577
Rocard, Y., 579
Royal Institute of Chemistry, 612

Saad, L. G., 574
St John, J., 570
Salisbury, G. W., *ed.* 596
Saxe, R. F., 605
Seaton, J. P., 617
Selove, F. Ajzenberg-, *ed.* 575
Shepherd, D. G., 603
Shute, P. G., 600
Sinclair, J., 609
Society for Water Treatment and Examination, 612
Society of Analytical Chemistry, 612
South Africa. Council for Scientific and Industrial Research, 613
Soviet research in geophysics, 589
Spice, J. E., *tr.* 585
Storer, W. O., 574
Strahler, A. N., 590
Strughold, H., *ed.* 599

Taube, H., *ed.* 588
Teuscher, H., 617

VanderWerf, C. A., *ed.* 584
Vickery, R. C., 588
von Kármán, T., *ed.* 601

Wait, W., 582
Wilf, H. S., *ed.* 573
Williams, D., 614
Williams, H. T., *ed.* 567
Wilson, J. R., *ed.* 613

Year book of education, 569

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Entries 622–83

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Aslib Book List

VOLUME 25 . NUMBER 11

3 SOCIAL SCIENCES

37 EDUCATION

LOWNDES, G. A. N. 622

The English educational system. Rev. ed. Hutchinson, 1960. 183pp., tables, diagr., bibliog. 12*s* 6*d*. *University library politics series, ed. by W. A. Robson.*

B First published 1955 as *The British educational system*. Chapters on secondary education and technology and further education fully revised.

RUSK, R. R. 623

An outline of experimental education. London, Macmillan; N.Y., St Martin's P., 1960. vii,118pp. 15*s*; $3.50.

B Intended to complement readings in educational psychology for students in training and university diploma students of education.

5 NATURAL SCIENCES

CROWTHER, J. G. 624

Founders of modern science: John Wilkins, Robert Boyle, John Ray, Christopher Wren, Robert Hooke, Isaac Newton. Cresset P., 1960. ix,296pp., plates, bibliog. 35*s*.

A Traces how and why there developed a lack of co-ordination between science and other aspects of life.

GILLESPIE, C. C. 625

The edge of objectivity: an essay in the history of scientific ideas. Princeton (N.J.), Princeton U.P.; London, OUP, 1960. vii,562pp., diagrs., bibliog. $7.50; 42*s*.

B Study of the strategic points in the history of science at which subjective and metaphysical modes of thought were overcome by the advance of the objective mode.

51 MATHEMATICS

HANNAN, E. J. 626

Time series analysis. London, Methuen; N.Y., Wiley, 1960. viii,152pp., tables, diagrs., bibliogs. 21*s*. *Methuen's monographs on applied probability and statistics, gen. ed. M. Bartlett.*

C Provides unified treatment of some recent advances in statistical methods, not previously available in book form.

KHINTCHINE, A. Y. 627

Mathematical methods in the theory of queueing; tr. by D. M. Andrews and M. H. Quenouille. Griffin, 1960. 120pp., diagr., bibliog. 32*s*. *Griffin's statistical monographs and courses, ed. by M. G. Kendall, no. 7.*

C Pure mathematics monograph studying questions of queueing in mass service in the light of theory of probability.

NORTHCOTT, D. G. 628

An introduction to homological algebra. CUP, 1960. xii,282pp., diagrs., bibliog. 42*s* 6*d*.

C First book on the subject designed with needs of the beginner in mind.

52 ASTRONOMY

526 Surveying

BISHOP, M. S. 629

Subsurface mapping, N.Y., London, Wiley, [1960]. ix,198pp., tables, diagrs., bibliogs. $5.75; 46*s*.

C Geologists should find this useful; a brief discussion of geophysical and geochemical maps is included. Ample illustrations and references.

53 PHYSICS

BREKHOVSKIKH, L. M. 630

Waves in layered media; tr. from the Russian by D. Lieberman, tr. ed. by R. T. Beyer. London, N.Y., Academic P., 1960. xi,561pp., plates, tables, diagrs., bibliog. 114*s* 6*d*; $16.

C Good American translation, presenting complete picture of Soviet researches on this subject, with extensive bibliography.

BUSBRIDGE, I. W. 631

The mathematics of radiative transfer. Cambridge, CUP, 1960. vii,143pp., bibliogs. 30*s*. *Cambridge tracts in mathematics and mathematical physics, gen. eds P. Hall and F. Smithers, no. 50.*

C Rigorous account of mathematical methods and exact results achieved to date. Replaces and extends Hopf's book in same series, published 1934 and now out of print.

CARR, L. H. A. 632

Relativity for engineers and science teachers. Macdonald, 1960. viii,52pp., tables, diagrs. 12*s* 6*d*.

B Concise, lucid introduction for graduate engineers and scientists. Confined to special theory.

CHAMPION, F. C. 633

University physics. Blackie, 1960. viii,786pp., tables, diagrs. 30*s*.

B Covers syllabus of Part I of the natural sciences tripos at Cambridge and of the new B.Sc. general degree of London. Many examples, with answers and hints for solution.

CHAPMAN, A. J. 634

Heat transfer. N.Y., London, Macmillan (N.Y.), 1960. xii,452pp., tables, diagrs. $9; 63*s*.

C Described as an introductory course in heat transfer by conduction, convection, and radiation, but more suitable for specialists.

EIRICH, F. R., *ed.* 635

Rhéology: theory and applications; vol. 3. N.Y., London, Academic P., 1960. xvi,680pp., illus., tables, diagrs. $21; 150*s*.

C Series of reviews by experts; some sections of interest to ceramists.

GRAY, P. E. 636

The dynamic behaviour of thermo-electric devices. Cambridge (Mass.), Technology P.; N.Y., London, Wiley, [1960]. viii,136pp., tables, diagrs., bibliog. $3.50; 28*s*. Typewriter script. *Technology Press research monographs, no. 6.*

C Mathematical study of the small-signal dynamic behaviour, notably of heat pumps and thermoelectric generators. For physicists and engineers.

JERRARD, H. G. *and* MCNEILL, D. B. 637
Theoretical and experimental physics. C & H, 1960. xiv,624pp., plates, tables, diagrs., bibliogs. 75*s*.

B Presents large number of experiments, with considerable amount of underlying theory and associated mathematics. For degree students and those in the scientific industry or teaching.

PHYSICAL SOCIETY, THE 638
Reports on progress in physics; vol. XXIII (1960), ed. by A. C. Stickland. The Society, 1960. iv,629pp., tables, diagrs., bibliogs. 3 *gns* (21*s* to members).

B–C Authoritative, up-to-date articles ranging from electronic structure of metals and photoelectric photometry to gamma-ray spectrometry and nuclear reactions.

RINDLER, W. 639
Special relativity. Edinburgh, London, O & B; N.Y., Interscience, 1960. x,186 pp., diagrs., bibliog. 10*s* 6*d*; $1.75. *University mathematical texts, ed. by A. C. Aitken and D. E. Rutherford.*

B

54 CHEMISTRY

EMELÉUS, H. J. *and* SHARPE, A. G., *eds* 640
Advances in inorganic chemistry and radiochemistry; vol. 2. N.Y., London, Academic P., 1960. viii,392pp., illus., tables, diagrs., bibliogs. $12; 86*s*.

B–C Self-contained, up-to-date articles on radiochemistry, chemistry of sulphur and its compounds, stereochemistry of ionic solids, organometallic compounds, and boron hydrides.

YATMIRSKII, K. B. *and* VASIL'EV, V. P. 641
Instability constants of complex compounds; tr. from the Russian by D. A. Paterson, tr. ed. R. H. Prince. Oxford, [etc.], N.Y., Paris, Pergamon P., 1960. viii,218pp., tables, diagrs., bibliogs. 42*s*.

B–C Brief discussion of thermodynamics and experimental techniques followed by tables of documented data for 1,380 compounds; fuller thermodynamic data in about 100 cases. Data up to 1956.

55 GEOLOGY

ROBERTSON, R. H. S. 642
Mineral use guide: or Robertson's spiders webs. Cleaver-Hume P., 1960. 44pp., diagrs. 21*s*. Loose-leaf binding.

D Properties and uses of fifty-two rocks and minerals are shown diagrammatically. Clear, concise, and unambiguous.

57 BIOLOGY

BAKER, J. R. 643
Cytological technique: the principles underlying routine methods. 4th ed. London, Methuen; N.Y., Wiley, 1960. xv,150pp., plate, table, diagrs., bibliog. 15*s*; $2.75. *Methuen's monographs on biological subjects, gen. ed. K. Mellanby.*

C Concise account of mechanism of fixation, embedding, dyeing, and mounting of biological material. Completely rewritten since 1950 edition.

HARDIN, G. 644
Nature and man's fate. Cape, 1960. xv,375pp., tables, diagrs., bibliog. 25*s*.

A–C Engaging and vigorous reassessment of Darwin's place in the story of evolutionary theory, together with lucid modern statement of the theory, which is then applied to the question of future human evolution.

HAWKER, L. E. *and others* 645
An introduction to the biology of micro-organisms, by L. E. Hawker, A. H. Linton, B. F. Folkes, M. J. Carlile. Edward Arnold, 1960. vii,452pp., illus., tables, diagrs.; bibliogs. 35*s*.

B Morphology of main groups of micro-organisms is described; then follow sections on their physiology and significance in various applied fields.

ROSTAND, J. 646
Error and deception in science: essays on biological aspects of life; tr. from the French by A. J. Pomerans. Hutchinson, 1960. 196pp., bibliogs. 18*s*.

A Lively interpretation of recent advances in biological science as they affect the laws, habits, health, and prospects of mankind.

577.1 Biochemistry

ALBERT, A. 647
Selective toxicity. 2nd ed. rev. London, Methuen; N.Y., Wiley, 1960. x,233pp., plates, tables, diagrs., bibliog. 35*s*; $5.50.

C Previous edition 1951.

PINCUS, G., *ed.* 648
Recent progress in hormone research; vol. XVI, proceedings of the Laurentian hormone conference 1959. N.Y., London, Academic P., 1960. viii,608pp., illus., tables, diagrs., bibliogs. $14; 100*s*.

C Authoritative summarizing articles on mechanism of hormone action, peptide hormones, thyroid hormones, and hormones and metabolism, with discussions.

58 BOTANY

STEWARD, F. C., *ed.* 649
Plant physiology: a treatise; vol. IA, cellular organization and respiration. N.Y., London, Academic P., 1960. xxvii,331pp., illus., tables, diagrs., bibliogs. $13; 93*s*.

C Detailed account of macrostructure and microstructure of plant cells, together with chapters on enzymes and cellular respiration.

6 APPLIED SCIENCES

62 ENGINEERING

620.1 Materials Testing

GRASSIE, J. C. 650
Applied mechanics for engineers: statics, dynamics, strength of materials. Longmans, 1960. xiii,652pp., tables, diagrs. 45*s*.

B For beginning of an honours degree course, most of a pass degree course, and useful reference for young draughtsmen.

621 Mechanical engineering

BLACKBURN, J. F. *and others, eds* 651
Fluid power control, ed. by J. F. Blackburn, G. Reethof, J. L. Shearer. Cambridge (Mass.), Technology P.; N.Y., London, Wiley, [1960]. xx,710pp., illus., tables, diagrs. $17.50; 140*s*. *Technology Press books in science and engineering*.

C Engineers' manual on theory and practice of oil and pneumatic servomechanisms, drives, and their components, based on experience at M.I.T. servomechanisms laboratory.

PHILLIPS, A. L., *ed.* 652
Welding handbook. 4th ed.; section 3, special welding processes and cutting. N.Y., American Welding Society; London, European ed. distributed by Cleaver-Hume P., [1960]. Various paging. Illus., tables, diagrs., bibliogs. 72*s*.

D Includes welding of plastics, ceramic spraying, adhesive bonding, and full information on such methods as induction and ultrasonic welding.

621.3 Electrical engineering

ADAMSON, C. *and* HINGORANI, N. G. 653
High voltage direct current power transmission, with a foreword by U. Lamm. Garraway, 1960. xvi,284pp., illus., tables, diagrs., bibliog. 84*s*.

B Survey of principles and practice, including plant, lines, cables, and system protection and operation.

CARR, L. H. A. 654
The testing of electric machines. Macdonald, 1960. xi,299pp., illus., tables, diagrs. 50*s*.

B Describes technique of testing standard machines, and principles underlying their operation. Equivalent of H.N.C. in electrical engineering required.

VAN VALKENBURGH, M. E. 655
Introduction to modern network synthesis. N.Y., London, Wiley, [1960]. xii,498pp., tables, diagrs., bibliog. $11.75; 94*s*.

B Covers one-terminal-pair and two-terminal-pair networks, including approximation, parts of network functions, and image parameter method. Chiefly for communication engineers and students.

622 Mining

ROBERTS, A., *ed.* 656
Mine ventilation. Cleaver-Hume P., 1960. x,363pp., illus., tables, diagrs., bibliogs. 70*s*.

C Comprehensive survey of modern theory and practice, and of recent research; with special reference to coal-mining.

625 Rail and Road engineering

PEARSON, H. M. 657
Railway works construction, with a foreword by J. S. Campbell. Odhams P., 1960. 304pp., illus., tables, diagrs., bibliog. 35*s*.

B Primarily for outdoor staff engaged in the erection and maintenance of structures; covers elementary theory, practice, and reports.

626 Hydraulic engineering

HOCKENSMITH, R. D., *ed.* 658
Water and agriculture: a symposium presented at the Washington meeting of the American Association for the Advancement of Science, December 29–30, 1958. Washington (D.C.), the Association; [London, B & S], 1960. viii,198pp., illus., tables, diagrs., bibliogs. $5; 45*s*.

C Deals with use and management of water resources in American agriculture; emphasis on need for co-ordinated control and development.

627 Natural waters and channels

THORN, R. B. 659
The design of sea defence works. Butterworths Scientific, 1960. xi,106pp., illus., table, diagrs., bibliog. 25*s*.

B Up-to-date review of sea defence practice, with examples from Kent. Useful but not comprehensive work.

629 Transport engineering

629.13 Aeronautical engineering

HANSFORD, R. F., *ed.* 660
Radio aids to civil aviation. Heywood, 1960. xvi,623pp., illus., tables, diagrs., bibliogs. 6 *gns.*

B–C Provides basic knowledge essential to full appreciation and intelligent application of radio in civil aviation.

63 AGRICULTURE

DE ONG, E. R. 661
Chemical and natural control of pests, N.Y., Reinhold; London, C & H, [1960]. viii,244pp., illus., tables, bibliogs. $7.50; 60*s.*

B–C Deals generally with need for control and methods available, and forms a practical guide to chemical control of pests in plants, animals, and buildings.

GUNTHER, F. A. *and* JEPPSON, L. R. 662
Modern insecticides and world food production. C & H, 1960. xv,284pp., plates, tables, bibliog. 50*s.*

B For non-specialists.

JEFFERS, J. N. R. 663
Experimental design and analysis in forest research. Stockholm, Almqvist & Wiksell, 1960. 172pp. 30*kr. International Union of Forest Research Organizations, publications.*

B Account of modern methods intended to make statistical processes more readily available to foresters engaged in research.

PLUNKETT FOUNDATION FOR CO-OPERATIVE STUDIES, *ed.* 664
Year book of agricultural co-operation 1960. Oxford, Blackwell, 1960. iv,396pp., tables, bibliogs. 35*s.*

D Geographical survey of its special field, with a review of literature, supplement to the *Select bibliography of co-operation* (1954), and index to issues from 1927.

REITZ, L. P., *ed.* 665
Biological and chemical control of plant and animal pests: a symposium presented by Section O on Agriculture at the Indianapolis meeting of the American Association for the Advancement of Science, December 28–30, 1957. Washington (D.C.), the Association; [London, B & S], 1960. xii,273pp., illus., tables, diagrs., bibliogs. $5.75; 52*s. Publications of the American Association for the Advancement of Science, no. 61.*

B Nineteen contributors deal with diseases as well as pests and interpret biological control very widely. Some sections are general but others related only to problems in the U.S.A.

SINGH, L. B. 666
The mango: botany cultivation and utilization. London, Leonard Hill; N.Y., Interscience, 1960. xiii,438pp., illus., tables, diagrs., bibliogs. 84*s*; $13.25. *World crop books, gen. ed. N. Polunin.*

B Authoritative textbook written primarily for horticultural scientists, but also recommended to botanists and agriculturalists.

VANSTONE, E. *and* DOUGALL, B. M. 667
Principles of dairy science. Cleaver-Hume P., 1960. 238pp., illus., tables, diagrs. 25*s.*

A–B Readable introduction covering management and chemical, bacteriological, legal, and processing aspects of milk production, including practical details for certain chemical and bacteriological tests. Sometimes over-simplified. For farm institute and college diploma students.

WORONOWICZ, L. 668
English–Polish and Polish–English agricultural dictionary. Polish Farmers Association in Great Britain in co-operation with the East Europe Institute, New York, [1960]. xi,267pp., illus., diagrs. 18*s*.
D

65 COMMERCE. ORGANIZATION. COMMUNICATIONS

658 Industrial management

BROWN, W. 669
Exploration in management: [a description of the Glacier Metal Company's concepts and methods of organization and management]. London, [etc.], Toronto, Heinemann, 1960. xxii,326pp., tables, diagrs., bibliog. 30*s*; $7.
B Progress report on the search for an optimum model of executive system, and exposition of organization, in conceptual terms.

HOWARD, R. A. 670
Dynamic programming and Markov processes. Cambridge (Mass.), Technology P.; N.Y., London, Wiley, [1960]. viii,136pp., tables, diagrs., bibliog. $5.75; 46*s*.
B Provides analytic structure for a decision-making system based on the Markov process and using an iterative technique for optimization, with detailed worked examples.

66 CHEMICAL TECHNOLOGY

FOUST, A. S. *and others* 671
Principles of unit operations. N.Y., London, Wiley, [1960]. ix,578pp., illus., tables, diagrs., bibliogs. $15; 120*s*.
B American textbook of chemical engineering based on thorough exposition of general physical and physico-chemical principles.

HUME-ROTHERY, W. 672
Atomic theory for students of metallurgy. 3rd ed. rev. Institute of Metals, 1960. viii,9–427pp., plates, tables, diagrs., bibliogs. 50*s*. *Institute of Metals monograph and report series, no. 3.*
B Brought up to date, with rewritten chapters on the co-valent bond and the different lines of approach to the electronic structure of metals. For honours students.

673
PROGRESS in metallurgical technology: lectures delivered at The Institution of Metallurgists refresher course, 1959. Iliffe for the Institution, 1960. vii,147pp., illus., tables, diagrs., bibliogs. 32*s* 6*d*.
B–C Surveys of present position in steelmaking, the non-ferrous extraction industry, and melting and casting techniques. Useful to students.

ROBERTS, C. S. 674
Magnesium and its alloys. N.Y., London, Wiley, [1960]. xi,230pp., illus., tables, diagrs., bibliogs. $9; 72*s*. *Wiley series on the science and technology of materials, advisory ed. J. H. Hollomon.*
B–C Concise presentation of theory and practice which should be of use to workers in physical metallurgy and technology of magnesium needing either isolated facts or a general outline of present knowledge.

ZELTOVICH, I. B. *and* KOMPANEETS, A. S. 675
Theory of detonation. N.Y., London, Academic P., 1960. 284pp., tables, diagrs. $10; 80*s*. Typewriter script.
C For advanced students and research workers. Translated from the original Russian edition, Moscow, 1955.

67/68 MANUFACTURES

APPLEYARD, H. M. 676
Guide to the identification of animal fibres. Leeds, Wool Industries Research Association, 1960. viii,118pp., illus., tables. 42*s* (21*s* to members).

B Microscopic characteristics of fibres from forty-four animal types are tabulated in terms of whole mount, cross-section, and scale pattern. 353 photomicrographs facilitate identification.

DE DANI, A., *ed.* 677
Glass fibre reinforced plastics; with a foreword by H. V. Blake. Newnes, 1960. viii,296pp., plates, tables, diagrs., bibliogs. 50*s*. *Newnes practical science books, ed. by J. G. Cook.*

B Contributions by workers active in the field provide an over-all picture of the industry, dealing with raw materials, moulding methods, and properties of glass fibre laminates.

REDFARN, C. A. *and* BEDFORD, J. 678
Experimental plastics: a practical course for students. 2nd ed. London, Iliffe for *British plastics*; N.Y., Interscience, [1960]. xii,140pp., tables, diagrs. 22*s* 6*d*; $4.25.

B Experiments in resin preparation, compounding, fabrication, and testing. For examinations of the Plastics Institute, but sections will be useful for prospective polymer chemists.

681 Precision Mechanisms

ALT, F. L., *ed.* 679
Advances in computers; vol. 1. N.Y., London, Academic P., 1960. x,316pp., tables, diagrs., bibliogs. $10; 80*s*.

C Covers programming, weather prediction, automatic translation, speech recognition, and binary arithmetic. For computer mathematicians, engineers, and users.

680
BRITISH instruments directory and buyers' guide 1960. United Science P. and Scientific Instrument Manufacturers' Association, 1960. 330pp., illus. 42*s*.
D

69 BUILDING

ALUMINIUM DEVELOPMENT ASSOCIATION 681
A symposium on aluminium in building, convened by the Aluminium Development Association and held at The Royal Institute of British Architects, London, July 9 and 10, 1959. The Association, 1960. 254pp., illus., tables, diagrs., bibliogs. 50*s*.

C Comprehensive survey of present-day building applications of aluminium, from symposium attended by architects, builders, engineers, and manufacturers from many countries.

AQUA GROUP, THE 682
Pre-contract practice for architects and quantity surveyors. Crosby Lockwood, 1960. ix,73pp., illus., tables, diagrs. 12*s* 6*d*. Spiral binding.

B Practical guide to preplanning teamwork to be completed by architect and quantity surveyor before work on site begins.

PETER, J., *ed.* 683
An international review of aluminium in modern architecture '60: companion to *Aluminium in modern architecture*, vols I, II, and 1958 supplement. Richmond (Va), Reynolds Metal Co.; [London, C & H], 1960. 116pp., illus., diagrs., bibliog. $2.50; 20*s*.

B Thirty recent buildings in many countries, briefly analysed and illustrated.

Publishers

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A & U	Allen & Unwin
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C & H	Chapman and Hall
CUP	Cambridge University Press
EUP	English Universities Press
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McG-H	McGraw-Hill
O & B	Oliver and Boyd
OUP	Oxford University Press
R & KP	Routledge & Kegan Paul
T & H	Thames & Hudson
ULP	University of London Press

Subject Index

REFERENCE IS TO UDC NUMBER

Aeronautical engineering 629.13
Agriculture 63
Applied sciences 6
Astronomy 52

Biochemistry 577.1
Biology 57
Botany 58
Building 69

Chemical technology 66
Chemistry 54
Commerce. Organization. Communications 65

Education 37
Electrical engineering 621.3
Engineering 62

Geology 55

Hydraulic engineering 626

Industrial management 658

Manufactures 67/68
Materials testing 620.1
Mathematics 51
Mechanical engineering 621
Mining 622

Natural sciences 5
Natural waters and channels 627

Physics 53
Precision mechanisms 681

Rail and road engineering 625

Social sciences 3
Surveying 526

Transport engineering 629

Author or Title Index

Adamson, C., 653
Aitken, A. C., *ed.* 639
Albert, A., 647
Alt, F. L., *ed.* 679
Aluminium Development Association, 681
American Association for the Advancement of Science, 658, 665
American Welding Society, 652
Andrews, D. M., *tr.* 627
Appleyard, H. M., 676
Aqua Group, 682

Baker, J. R., 643
Bartlett, M., *ed.* 626
Bedford, J., 678
Beyer, R. T., *ed.* 630
Bishop, M. S., 629
Blackburn, J. F., *ed.* 651
Brekhovskikh, L. M., 630
British instruments directory 680
Brown, W., 669
Busbridge, I. W., 631

Carlile, M. J., 645
Carr, L. H. A., 632, 654
Champion, F. C., 633
Chapman, A. J., 634
Cook, J. G., *ed.* 677
Crowther, J. G., 624

Dani, A. de, *ed.* 677
de Dani, A., *ed.* 677
de Ong, E. R., 661
Dougall, B. M., 667

Eirich, F. R., *ed.* 635
Emeléus, H. J., *ed.* 640

Folkes, B. F., 645
Foust, A. S., 671

Gillespie, C. C., 625
Grassie, J. C., 650
Gray, P. E., 636
Gunther, F. A., 662

Hall, P., *ed.* 631
Hannan, E. J., 626
Hansford, R. F., *ed.* 660
Hardin, G., 644
Hawker, L. E., 645
Hingorani, N. G., 653
Hockensmith, R. D., *ed.* 658
Hollomon, J. H., *ed.* 674
Howard, R. A., 670
Hume-Rothery, W., 672

Jeffers, J. N. R., 663
Jeppson, L. R., 662
Jerrard, H. G., 637

Kendall, M. G., *ed.* 627
Khintchine, A. Y., 627
Kompaneets, A. S., 675

Lieberman, D., *tr.* 630
Linton, A. H., 645
Lowndes, G. A. N., 622

McNeill, D. B., 637
Mellanby, K., *ed.* 643

Northcott, D. G., 628

Ong, E. R. de, 661

Paterson, D. A., *tr.* 641
Pearson, H. M., 657
Peter, J., *ed.* 683
Phillips, A. L., *ed.* 652
Physical Society, 638
Pincus, G., *ed.* 648
Plunkett Foundation for Co-operative Studies, *ed.* 664
Polunin, N., *ed.* 666

Pomerans, A. J., *tr.* 646
Prince, R. H., *ed.* 641
Progress in metallurgical technology, 673

Quenouille, M. H., *tr.* 627

Redfarn, C. A., 678
Reethof, G., *ed.* 651
Reitz, L. P., *ed.* 665
Rindler, W., 639
Roberts, A., *ed.* 656
Roberts, C. S., 674
Robertson, R. H. S., 642
Robson, W. A., *ed.* 622
Rostand, J., 646
Rothery, W. Hume-, 672
Rusk, R. R., 623
Rutherford, D. E., *ed.* 639

Scientific Instrument Manufacturers' Association, 680
Sharpe, A. G., *ed.* 640
Shearer, J. L., *ed.* 651
Singh, L. B., 666
Smithers, F., *ed.* 631
Steward, F. C., *ed.* 649
Stickland, A. C., *ed.* 638

Thorn, R. B., 659

Valkenburgh, M. E. Van, 655
Van Valkenburgh, M. E., 655
Vanstone, E., 667
Vasil'ev, V. P., 641

Woronowicz, L., 668

Yatmirskii, K. B., 641

Zeltovich, I. B., 675

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01 BIBLIOGRAPHY

684 GUIDE to American directories: a guide to the major business directories of the United States, covering all industrial professional, and mercantile categories. 4th ed., 1960. N.Y., B. Klein & Co., 1960. x,424pp. $20.

D Full information arranged according to industry or profession, with alphabetical index by title. Includes a selection from other countries.

685 INTERNATIONAL MUSICOLOGICAL SOCIETY *and* INTERNATIONAL ASSOCIATION OF MUSIC LIBRARIES

Répertoire international des sources musicales (international inventory of musical sources). Recueils imprimés XVIe–XVIIe siècles: 1, liste chronologique. Munchen-Duisberg, G. Henle Verlag; London, Novello, 1960. 639pp. 136*s* (subscription price 120*s*).

D Guide to more than 2,700 printed collections of 16th- and 17th-century music, a collection being defined as any 'production containing the works of more than one author'.

02 LIBRARIANSHIP

686 INTERNATIONAL ASSOCIATION OF AGRICULTURAL LIBRARIANS AND DOCUMENTALISTS

World directory of agricultural libraries and documentation centres, ed. by D. H. Boalch. Harpenden, the Association, 1960. [6],280pp. 35*s*.

D Comprehensive list with brief annotations indicating size and scope of collections, number of staff, and classification scheme used.

687 MILLS, J.

A modern outline of library classification. C & H, 1960. viii,196pp. 36*s*.

B Clear exposition of theory of classification, principal systems, and modern developments in facet analysis.

688 NATIONAL FILM ARCHIVE

Rules for use in the cataloguing department of the National Film Archive. 5th rev. ed. British Film Institute, 1960. 46pp. 5*s*.

D Different examples, index, and new appendixes covering the preliminary catalogue and giving definitions and abbreviations.

689 UNESCO

National libraries, their problems and prospects: symposium on national libraries in Europe, Vienna, 8–27 September 1958. Paris, Unesco, 1960. 125pp., illus. 10*s*. *Unesco manuals for libraries, no. 11.*

B Papers on organization, bibliographical activities, and co-operative action of national libraries.

3 SOCIAL SCIENCES

33 ECONOMICS

690 ROBSON, W. A.

Nationalised industry and public ownership. A & U, 1960. 544pp., tables, bibliog. 50*s*.

C Primarily an inquiry into the working of British nationalized industries during the past ten years.

37 EDUCATION

EDWARDS, R. 691
The secondary technical school; foreword by W. O. L. Smith. ULP, [1960]. 206pp., plates, tables. 15*s*.

B Results of two-year investigation into present organization of secondary technical education in England and Wales.

HUGHES, A. G. *and* HUGHES, E. H. 692
Education, some fundamental problems: a discussion book for students of education. Longmans 1960. xi,296pp., diagrs., bibliog. 14*s*.

B Supplementary to the authors' *Learning and teaching*.

4 PHILOLOGY

693
WORLD list of abbreviations of scientific, technological, and commercial organizations. 2nd ed. Leonard Hill, 1960. ix,300pp. 25*s*.

D Enlarged edition including the numerous organizations formed since 1954.

5 NATURAL SCIENCES

DARLING, F. F. 694
Wild life in an African territory: a study made for the Game and Tsetse Control Department of Northern Rhodesia. London, N.Y., Toronto, OUP, 1960. ix,160pp., plate, tables, diagrs., bibliog. 25*s*; $4.

A–B Critical study based on six months' observation during 1956–7.

HALL, A. R., *ed.* 695
The making of modern science: six essays by G. Buchdahl, M. B. Hall, M. A. Hoskin, S. Lilley, A. R. Hall, C. E. Rowen, ed. with a foreword by A. R. Hall. Leicester, Leicester U.P., 1960. 55pp., bibliog. 6*s*.

A Authoritative exposition of scientific revolution of the seventeenth century, first given as talks on BBC Third Programme.

MCKENZIE, A. E. E. 696
The major achievements of science; vol. 1. Cambridge, CUP, 1960. xvi,368pp., illus., plates, tables, diagrs., bibliog. 30*s*.

A Accurate and well-balanced outline of history of science for non-scientists.

51 MATHEMATICS

GILLMAN, L. *and* JERISON, M. 697
Rings of continuous functions. Princeton (N.J.), [etc.], London, Van Nostrand, [1960]. ix,300pp., bibliog. $8.75; 66*s*. *University series in higher mathematics, ed. by M. H. Stone and others.*

C

HYSLOP, J. M. 698
Real variable. Edinburgh, London, O & B; N.Y., Interscience, 1960. viii,136 pp. 8*s* 6*d*; $1.95. *University mathematical texts, gen. eds A. C. Aitkin, D. E. Rutherford.*

B First-year university course dealing lucidly with bounds, limits, continuity, and differentiability. Exponential, logarithmic, and circular functions are defined and developed to illustrate the basic theory.

KÖRNER, S. 699
The philosophy of mathematics: an introductory essay. Hutchinson, 1960. 198pp., bibliog. 12*s* 6*d*. *Hutchinson university library: philosophy, ed. H. J. Paton.*

B Closely argued essay on logical status of mathematical propositions and problem of nature of pure and applied mathematics. Logistic, formalist, and intuitive views are clearly described and criticized.

TAKÁCS, L. 700
Stochastic processes: problems and solutions; tr. [from the Hungarian] by P. Zádor. London, Methuen; N.Y., Wiley, 1960. xi,137pp., tables, bibliog. 18*s*. *Methuen's monographs on applied probability and statistics, gen. ed. M. Bartlett.*

C Collection of problems and solutions in fields of the natural sciences, engineering, and industry, for those familiar with probability theory.

53 PHYSICS

BISHOP, R. E. D. *and* JOHNSON, D. C. 701
The mechanics of vibration. CUP, 1960. xii,592pp., plate, tables, diagrs. 120*s*.

C Exhaustive treatise, most valuable to the practical engineer, advanced student, or research worker.

BRAILSFORD, F. 702
Magnetic materials. 3rd ed. London, Methuen; N.Y., Wiley, 1960. vii,188pp., tables, diagrs., bibliogs. 16*s*. *Methuen's monographs on physical subjects, gen. ed. B. L. Worsnop.*

C Substantial revision and enlargement, with new chapter on ferrites.

GOLDSMITH, W. 703
Impact: the theory and physical behaviour of colliding solids. Edward Arnold, 1960. xv,379pp., tables, diagrs., bibliog. 90*s*.

C Exhaustive, well-illustrated work for advanced students, research workers, and designers.

TOLANSKY, S. 704
Surface microtopography. Longmans, 1960. viii,296pp., illus., tables, diagrs., bibliog. 55*s*.

C Well-illustrated account of methods and applications of interferometry to very precise measurement of topography of surfaces.

YOURGRAU, W. *and* MANDELSTAM, S. 705
Variational principles in dynamics and quantum theory. 2nd ed. Pitman, 1960. xi,180pp., diagrs., bibliog. 32*s* 6*d*.

C Outstanding account of variational principles in physics based on least time and least action; partly mathematical.

539.1 Nuclear physics

HERDAN, G. *and others* 706
Small particle statistics: an account of statistical methods for the investigation of finely divided materials; with a guide to the experimental design of particle size determinations by M. L. Smith, W. H. Hardwick, and P. Connor. 2nd rev. ed. London, Toronto, [etc.], Butterworths; N.Y., Academic P., 1960. xxiii,418pp., tables, diagrs., bibliogs. 80*s*; $14.50.

C Amplified review, particularly valuable to academic and research workers in this field who are unfamiliar with statistical methods.

PUTMAN, J. L. 707
Isotopes. Penguin Books, 1960. 232pp., plates, tables, diagrs., bibliog. 8*s* 6*d*. *Pelican Books, A476.*

A Authoritative account of nature, isolation, and measurement of radioisotopes, their applications in industrial, research, and medical fields, and the health problems and precautions involved in their use.

54 CHEMISTRY

MUELLER, W. M., *ed.* 708
Advances in x-ray analysis; vols. 1, 2, and 3: proceedings of the sixth, seventh, and eighth annual conferences on applications of x-ray analysis, sponsored by University of Denver, Denver Research Institute, held August . . . 1957, 1958, 1959. N.Y., distributed by Plenum P., [1960]. Illus., tables, diagrs., bibli 3v. Typewriter script.

B–C Vol. 1, [9],494pp. $8.50. Vol. 2, 359pp. $8.50. Vol. 3, viii,376pp. $12. Mainly concerned with applications, but includes new equipment and techniques in fields of x-ray fluorescent analyses and x-ray diffraction and microscopy. No indexes.

TOBOLSKY, A. V. 709
Properties and structure of polymers. N.Y., [London], Wiley, [1960]. ix,331 pp., illus., tables, diagrs., bibliog. $14.50; 116*s*. *Wiley series on the science and technology of materials, ed. by J. H. Hollomon and others.*

C Exposition of physical properties of polymers.

55 GEOLOGY

710
SOVIET research in geophysics in English translation; vol. 4, investigation of the mechanism of earthquakes, by E. N. Bessenova and others. N.Y., Consultants Bureau for American Geophysical Union, [1960]. viii,201pp., tables, diagrs., bibliog. $7.50. *Transactions (Trudy) of the Geophysics Institute of the Academy of Sciences of the USSR, no. 40 (166).*

C Well-written account of recent research, of interest to all professional seismologists.

57 BIOLOGY

BUTLER, J. A. V. *and* KATZ, B., *eds* 711
Progress in biophysics and biophysical chemistry; vol. 10. Oxford, [etc.], N.Y., Paris, Pergamon P., 1960. vii,440pp., plates, tables, diagrs., bibliogs. 5 *gns*; $17.50. *Progress series.*

C Symposium dealing with thermodynamics applied to biology and biochemistry, with nucleic acids, tobacco mosaic virus, radiation biology, cell membranes, and configuration of proteins in solution.

ERRARA, M. *and* FORSSBERG, A., *eds* 712
Mechanisms in radiobiology; vol. 2, multicellular organisms. N.Y., London, Academic P., 1960. xiii,395pp., illus., tables, diagrs., bibliogs. $13; 93*s*.

B–C Authoritative articles on effects of high energy radiation on developing and adult complex organisms, especially their immunology. Well produced and fully documented.

FALCONER, D. S. 713
Introduction to quantitative genetics. Edinburgh, London, O & B, 1960. ix, 365pp., tables, diagrs., bibliog. 35*s*.

C Covers whole field of population genetics, including gene frequency and effects of migration, mutation, and selection, and random changes in small populations; also selection, inbreeding, and crossing.

PICKEN, L. 714
The organization of cells and other organisms. Oxford, Clarendon P., 1960. xxxvii,629pp., illus., plates, diagrs., bibliog. 94*s*.
C Extensive survey of cell organization at the macromolecular level, primarily for post-graduate students and research workers.

SZENT-GYÖRGYI, A. 715
Introduction to a submolecular biology. N.Y., London, Academic P., 1960. [8],135pp., illus., tables, diagrs. $5; 40*s*.
B Stimulating and well-written work on application of modern valency theory to biological and especially biophysical problems.

WALKER, P. M. B., *ed.* 716
New approaches in cell biology: proceedings of a symposium held at Imperial College, London, July 1958. London, N.Y., Academic P., 1960. viii,208pp., illus., tables, diagrs., bibliogs. 48*s*; $6.
C Outstanding papers on nuclear transfer in amphibia (Moore) and amoeba (Danielli), on paper chromatography (Buzzati-Traverso), cytochemistry of proteins (Barnard), and nucleic acids (Leuchtenberger).

58 BOTANY

HARPER, J. L., *ed.* 717
The biology of weeds: a symposium of the British Ecological Society, Oxford, 2nd–4th April 1959. Oxford, Blackwell Scientific, 1960. xv,256pp., plates, tables, diagrs., bibliog. 2 *gns*. *British Ecological Society symposia, no. 1.*
C

PARKINSON, D. *and* WAID, J. S., *eds* 718
The ecology of soil fungi: an international symposium. Liverpool, Liverpool U.P., 1960. xi,324pp., tables, diagrs., bibliog. 42*s* 6*d*.
C Proceedings of a symposium held in 1958.

59 ZOOLOGY

DUNCAN, D. L. *and* LODGE, G. A. 719
Diet in relation to reproduction and the viability of the young; part III, pigs; with a foreword by R. G. Baskett. Farnham Royal (Bucks), Commonwealth Agricultural Bureaux, 1960. vii,106pp., tables, bibliog. 20*s*. *Commonwealth Bureaux of Animal Nutrition technical communication no. 21.*
B–C Detailed review of published experimental work on reproductive performance and nutrient requirements of breeding pigs. Illustrates wide scope of subject and need for further research.

JEANNEL, R. 720
Introduction to entomology; tr. [from the French] by H. Oldroyd. Hutchinson, 1960. 344pp., illus., plates, diagrs. 3 *gns*.
B

ROMANOFF, A. L. 721
The avian embryo: structural and functional development. N.Y., [London], Macmillan (N.Y.), [1960]. xvii,1305pp., illus., tables, diagrs., bibliog. $35; 10 *gns*.
C Encyclopaedic work on germ cells, fertilization, and early morphogenesis, with separate chapters on development of each organ system and on extraembryonic membranes.

6 APPLIED SCIENCES

62 ENGINEERING

621 Mechanical engineering

ABBOTT, W. 722
Machine drawing and design: a textbook of intermediate standard for engineering students. 7th ed. London, Glasgow, Blackie, 1960. 281pp., tables, diagrs. 21*s*.

B For students preparing for examinations of engineering institutions, and useful reference for draughtsmen. Much new material included.

723
SPARK machining. Brighton, Machinery, [1960]. 72pp., illus., diagrs., bibliog. 5*s*. *Machinery's yellow back series, no. 46.*

B Not for expert, but needed and useful book for operator and those considering spark machining as a workshop tool.

STRASSER, F. 724
Practical design of sheet metal stampings; ill. by C. E. Fees. C & H, 1960. viii,175pp., tables, diagrs. 50*s*.

B

WEST, J. C. 725
Analytical techniques for non-linear control systems. EUP, 1960. xii,13-223pp., diagrs., bibliog. 25*s*. *Electrical engineering series, gen. ed. A. Porter.*

C Deals with performance analysis of closed-loop automatic feedback control systems governed by higher than second-order non-linear differential equations.

621.3 Electrical engineering

HELSTROM, C. W. 726
Statistical theory of signal detection. Oxford, [etc.], N.Y., Paris, Pergamon P., 1960. viii,364pp., diagrs., bibliogs. 3 *gns*; $9.50. *International series of monographs on electronics and instrumentation, gen. eds D. W. Fry and W. A. Higinbotham, vol. 9.*

C Introduction for mathematicians and engineers to problem of detection probability in presence of random noise. Extensive bibliography.

ROBERTS, J. 727
High frequency applications of ferrites. EUP, 1960. x,166pp., tables, diagrs., bibliog. 16*s*. *Electrical engineering series, gen. ed. A. Porter.*

C Concise presentation of physical phenomena in ferrites, and of the use of ferrite components in various systems, including communication and computers.

TUDBURY, C. A. 728
Basics of induction heating. N.Y., Rider; London, C & H, [1960]. vii,132; vii,133pp., illus., tables, diagrs. $7.80; 3 *gns*.

B

624 Civil engineering

GRINTER, L. E. 729
Design of modern steel structures. 2nd ed. N.Y., [London], Macmillan (N.Y.), [1960]. xxii,491pp., illus., plates, tables, diagrs. $6.50; 45*s*.

B Joints and connections, member design, design of girders, roof trusses, bridges, and a multistorey building. First edition 1941.

GUYON, Y. 730
Prestressed concrete; vol. 2, statically indeterminate structures; tr. [from the French] by C. van Amerongen. London, Contractors Record; N.Y., Wiley, 1960. xx,741pp., plates, tables, diagrs., bibliog. 95*s*.

C First half deals with elastic design of bridges, portals, etc., with special reference to theory of the concordant cable; second half deals with ultimate load design.

63 AGRICULTURE

COLLINS, J. L. 731
The pineapple: botany, cultivation, and utilization. London, Leonard Hill; N.Y., Interscience, 1960. xvii,295pp., plates, tables, diagrs., bibliog. 60*s*; $9.75. *World crop books, gen. ed. N. Polunin.*

B Monograph covering all aspects of the pineapple crop.

PAISLEY, K. 732
Fertilizers and manures. Collingridge, 1960. 208pp., plates, tables, diagrs., bibliog. 30*s*.

B Deals with different kinds of manures and their use in relation to the different needs of plants.

VOISIN, A. 733
Better grassland sward: ecology–botany–management; tr. from the French by C. T. M. Herriott. Crosby Lockwood, 1960. xiii,341pp., tables, diagrs., bibliog. 2 *gns*.

B Discussion, from the point of view of the practical farmer, of effects of soil and climate, management, and the grazing animal, on grassland flora.

WATSON, S. J. *and* NASH, M. J. 734
The conservation of grass and forage crops. 2nd enlarged ed. Edinburgh, London, O & B, 1960. xiv,758pp., tables, diagrs., bibliog. 4 *gns*.

C First edition published as *The science and practice of conservation*, by S. J. Watson, The Fertilisers and Feedingstuffs Journal, 1939

636 Livestock

FRASER, A. 735
Animal husbandry heresies. Crosby Lockwood, 1960. 200pp., tables, diagrs., bibliogs. 16*s*.

A The 'heresies' concern the application of scientific theory to breeding and nutrition.

MASON, I. L. *and* MAULE, J. P. 736
The indigenous livestock of Eastern and Southern Africa. Farnham Royal (Bucks), Commonwealth Agricultural Bureaux, 1960. xv,151pp., illus., plates, tables, diagrs., bibliog. 45*s*. *Commonwealth Bureau of Animal Breeding and Genetics, Edinburgh, technical communication no. 14.*

B Description and classification of indigenous cattle, sheep, goats, pigs, camels, horses, and asses. Companion to Mason's *Classification of West African livestock*, 1951.

66 CHEMICAL TECHNOLOGY

BURROWS, G. 737
Molecular distillation. Oxford, Clarendon P., 1960. ix,214pp., plates, tables, diagrs., bibliog. 35*s*. *Monographs on the physics and chemistry of materials, gen. eds W. Jackson and others.*

C Review of the theory, practice, and application of the subject, which will be invaluable to chemists, physicists, and engineers concerned with research and other aspects of this field.

SYNGELL, E. S. 738
Applied chemistry for engineers. 3rd ed. Edward Arnold, 1960. viii,359pp., tables, diagrs., bibliogs. 28*s*.

B Useful background for engineering students. Now includes interesting chapter on nuclear energy; a further edition would be improved by revision of the section on paints.

O'CONNOR, J. R. *and* SMILTENS, J., *eds* 739
Silicon carbide: a high temperature semiconductor: proceedings of the conference on silicon carbide, Boston, Massachusetts, April 2–3, 1959, sponsored by the Electronics Research Directorate, Air Force Cambridge Research Center, Bedford, Massachusetts. Oxford, [etc.], N.Y., Paris, Pergamon P. 1960. xix,521pp., illus., tables, diagrs., bibliogs. 90*s*; $12.50.

C Unique collection of 46 papers with discussions on physics, chemistry, and uses of silicon carbide.

SWANSON, E. B., *comp.* 740
A century of oil and gas in books: a descriptive bibliography. N.Y., Appleton-Century-Crofts; Toronto, Saunders, 1960. xii,214pp. $4.75; $6.25.

D Valuable bibliography of more important books and periodicals on oil.

67/68 MANUFACTURES

ESTEVEZ, J. M. J. *and* POWELL, D. C. 741
Manipulation of thermoplastic sheet, rod, and tube. Iliffe for The Plastics Institute, 1960. xi,148pp., illus., tables, diagrs. 27*s* 6*d*.

B Well-written and comprehensive treatment of fabricating processes used in shaping sheet forms of polymethyl methacrylate, PVC, polythene, and polystyrene.

NARCUS, H. 742
Metallizing of plastics. N.Y., Reinhold; London, C & H, [1960]. ix,208pp., illus., tables, diagrs., bibliog. $5.50; 44*s*. *Reinhold plastics applications series, no. 16.*

B Deals with methods used and applications of the products. Concentrates on practical aspects.

SKINNER, THOMAS & CO. (Publishers) LTD 743
Wool trade directory of the world 1960–61. Bradford, London, Skinner, [1960]. lvi,953pp., tables. 85*s*.

D Claimed to be the only comprehensive directory to the world wool trade.

69 BUILDING

TAYLOR, C. P. *and* TURNER, L. 744
Reinforced concrete chimneys. 2nd ed. rev. by L. Turner. Concrete Publications, 1960. vi,82pp., tables, diagrs., bibliog. 12*s*. *Concrete series.*

B First edition 1940. New material includes wind force calculations, a method of analysing annular sections, and deflection calculations.

Publishers

THE FOLLOWING ABBREVIATIONS ARE USED IN ASLIB BOOK LIST

A & U	Allen & Unwin
B & S	Bailey & Swinfen
C & H	Chapman and Hall
CUP	Cambridge University Press
EUP	English Universities Press
HMSO	Her Majesty's Stationery Office
McG-H	McGraw-Hill
O & B	Oliver and Boyd
OUP	Oxford University Press
R & KP	Routledge & Kegan Paul
T & H	Thames & Hudson
ULP	University of London Press

Subject Index

REFERENCE IS TO UDC NUMBER

Agriculture 63
Applied sciences 6

Bibliography 01
Biology 57
Botany 58
Building 69

Chemical technology 66
Chemistry 54
Civil engineering 624

Economics 33
Education 37
Electrical engineering 621.3
Engineering 62

Geology 55

Librarianship 02
Livestock 636

Manufactures 67/68
Mathematics 51

Mechanical engineering 621

Natural sciences 5
Nuclear physics 539.1

Philology 4
Physics 53

Social sciences 3

Zoology 59

Author or Title Index

Abbott, W., 722
Air Force Cambridge Research Center, 739
Aitkin, A. C., *ed.* 698
Amerongen, C. van, *tr.* 730

Bartlett, M., *ed.* 700
Bessenova, E. N., 710
Bishop, R. E. D., 701
Boalch, D. H., *ed.* 686
Brailsford, F., 702
British Ecological Society, 717
Buchdahl, G., 695
Burrows, G., 737
Butler, J. A. V., *ed.* 711

Collins, J. L., 731
Connor, P., 706

Darling, F. F., 694
Duncan, D. L., 719

Edwards, R., 691
Errara, M., *ed.* 712
Estevez, J. M. J., 741

Falconer, D. S., 713
Fees, C. E., *ill.* 724
Forssberg, A., *ed.* 712
Fraser, A., 735
Fry, D. W., *ed.* 726

Gillman, L., 697
Goldsmith, W., 703
Grinter, L. E., 729
Guide to American directories, 684
Guyon, Y., 730
Gyngell, E. S., 738
Györgyi, A. Szent-, 715

Hall, A. R., *ed.* 695
Hall, M. B., 695
Hardwick, W. H., 706
Harper, J. L., *ed.* 717
Helstrom, C. W., 726
Herdan, G., 706
Herriott, C. T. M., *tr.* 733
Higinbotham, W. A., *ed.* 726
Hollomon, J. H., *ed.* 709
Hoskin, M. A., 695
Hughes, A. G., 692
Hughes, E. H., 692
Hyslop, J. M., 698

International Association of Agricultural Librarians and Documentalists, 686
International Association of Music Libraries, 685
International Musicological Society, 685

Jackson, W., *ed.* 737
Jeannel, R., 720
Jerison, M., 697
Johnson, D. C., 701

Katz, B., *ed.* 711
Körner, S., 699

Lilley, S., 695
Lodge, G. A., 719

McKenzie, A. E. E., 696
Mandelstam, S., 705
Mason, I. L., 736
Maule, J. P., 736
Mills, J., 687
Mueller, W. M., *ed.* 708

Narcus, H., 742
Nash, M. J., 734
National Film Archive, 688

O'Connor, J. R., *ed.* 739
Oldroyd, H., *tr.* 720

Paisley, K., 732
Parkinson, D., *ed.* 718
Paton, H. J., *ed.* 699
Picken, L., 714
Polunin, N., *ed.* 731
Porter, A., *ed.* 725, 727
Powell, D. C., 741
Putman, J. L., 707

Roberts, J., 727
Robson, W. A., 690
Romanoff, A. L., 721
Rowen, C. E., 695
Rutherford, D. E., *ed.* 698

Skinner, Thomas & Co. (Publishers) Ltd, 743
Smiltens, J., *ed.* 739
Smith, M. L., 706
Soviet research in geophysics 710
Spark machining, 723
Stone, M. H., *ed.* 697
Strasser, F., 724
Swanson, E. B., *comp.* 740
Szent-Györgyi, A., 715

Takács, L., 700
Taylor, C. P., 744
Tobolsky, A. V., 709
Tolansky, S., 704
Tudbury, C. A., 728
Turner, L., 744

Unesco, 689
University of Denver, 708

van Amerongen, C., *tr.* 73
Voisin, A., 733

Waid, J. S., *ed.* 718
Walker, P. M. B., *ed.* 716
Watson, S. J., 734
West, J. C., 725
World list of abbreviatio 693
Worsnop, B. L., *ed.* 702

Yourgrau, W., 705

Zádor, P., *tr.* 700

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